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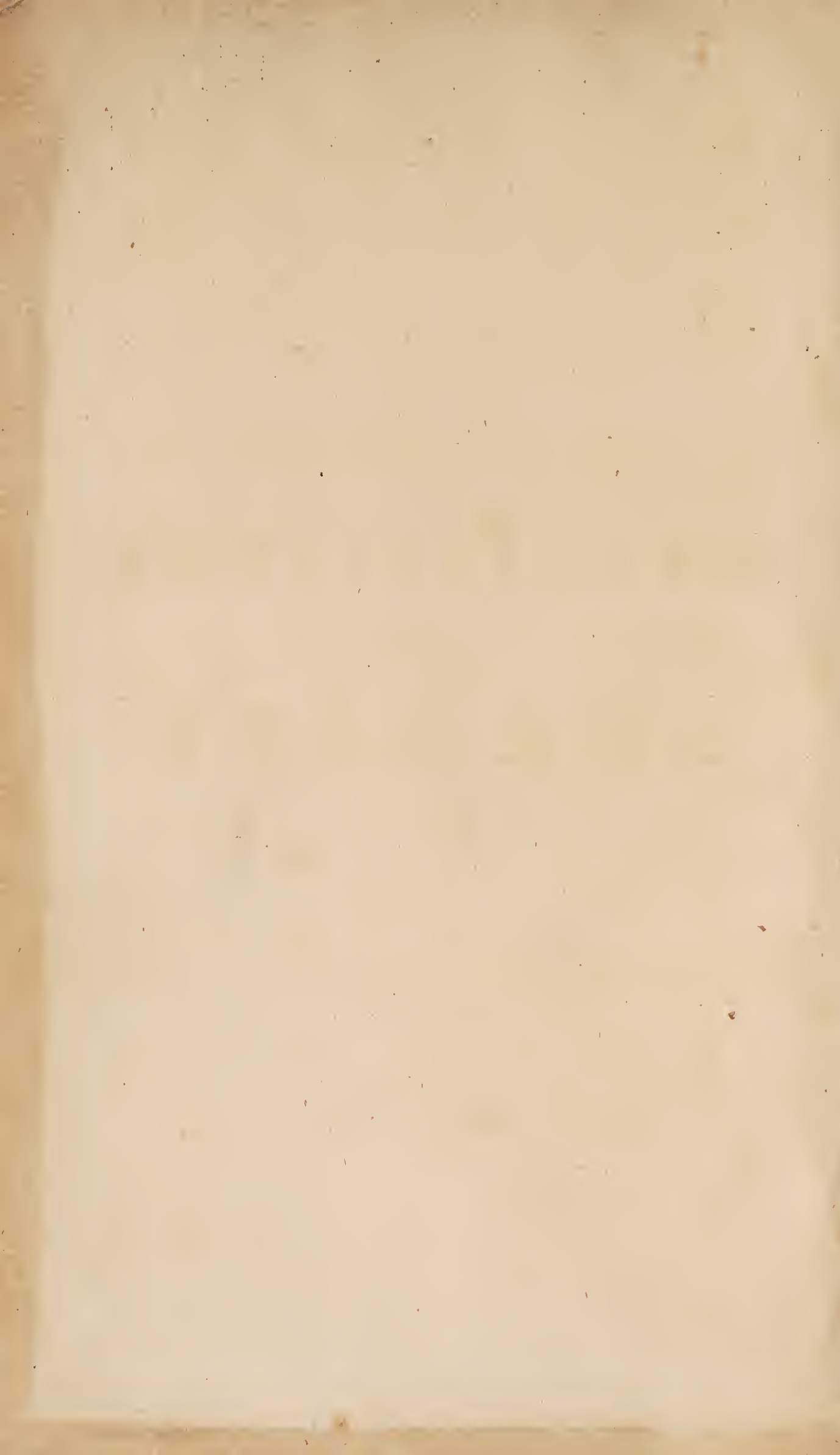
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T O
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SERJEANT-SURGEON

T O
H I S M A J E S T Y.

S I R,



H E excellent Author
whom I have attempted
to translate, is held in the
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and his Labours in the
Art of Surgery will be always useful
to the studious Part of Mankind.
And to whom could I better have Re-
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THE Author of the following Observations bears so exalted a Character in the World, for his Knowledge in the Art he professes, that no Preface is wanting to recommend, or give a Gloss to his Performances.

From a just Persuasion of the Advantage that will accrue to young Surgeons from a Work of this Kind, I thought I could not better employ Hours absent from Business, than by rendering these Observations into English, for the Benefit of those young Students who are Strangers to the original Language. In this I have only pursued the Author's Intention to his own Countrymen, and endeavoured to serve my own, by communicating to them what he thought so useful to his.

The Manner in which these Observations are delivered, by an Introduction to each Case, and Remarks thereon, are so pleasing, that they must naturally captivate even those who have a slender Knowledge in Surgery, and be admired by others more expert in that Art. The whole is conducted with that Judgment, Sagacity, and Penetration, supported by the profoundest Knowledge in Anatomy and Animal Œconomy; his Operations performed so judicially, and with so much Humanity and paternal Tenderneſs to his Fellow-Creatures, that he justly deserves those Honours the King conferred upon him, and that universal Esteem of Mankind he enjoys.

P R E F A C E.

But when I observe the Care he has taken of the Education of young Students in Surgery (for whose Service he designed this Work) with what Generosity and Freedom does he confess those Errors he has fallen into himself, and proves his Affection to them, by saying, They had better improve by the Mistakes of others, than their own !

The Author, in his Address to all young Students, has given the Reason why he chose to deliver the Art of Surgery by way of Observation, as being capable of affording the most solid Improvement.

I hope this Performance being the Product of a foreign Country, will be no Objection to it. Arts and Sciences are cultivated with the View of a general Benefit to our Fellow-Creatures ; and though we should have a political Objection to any Nation, does it follow that we should not embrace the Sciences of that Nation for our own Advantage ? I hope we are too much Englishmen, to imagine we cannot improve by them, since they are so generous, as to acknowledge they have improved by us.

It is natural to imagine, that I am speaking of the French Nation ; though what I said before related to Nations in general.

But in Justice to that Nation, with regard to the Improvements in Surgery, I confess myself indebted to them for that small Share of Knowledge I have acquired in it ; and hope, that whosoever reads these Observations, will reap the same Advantage as myself.

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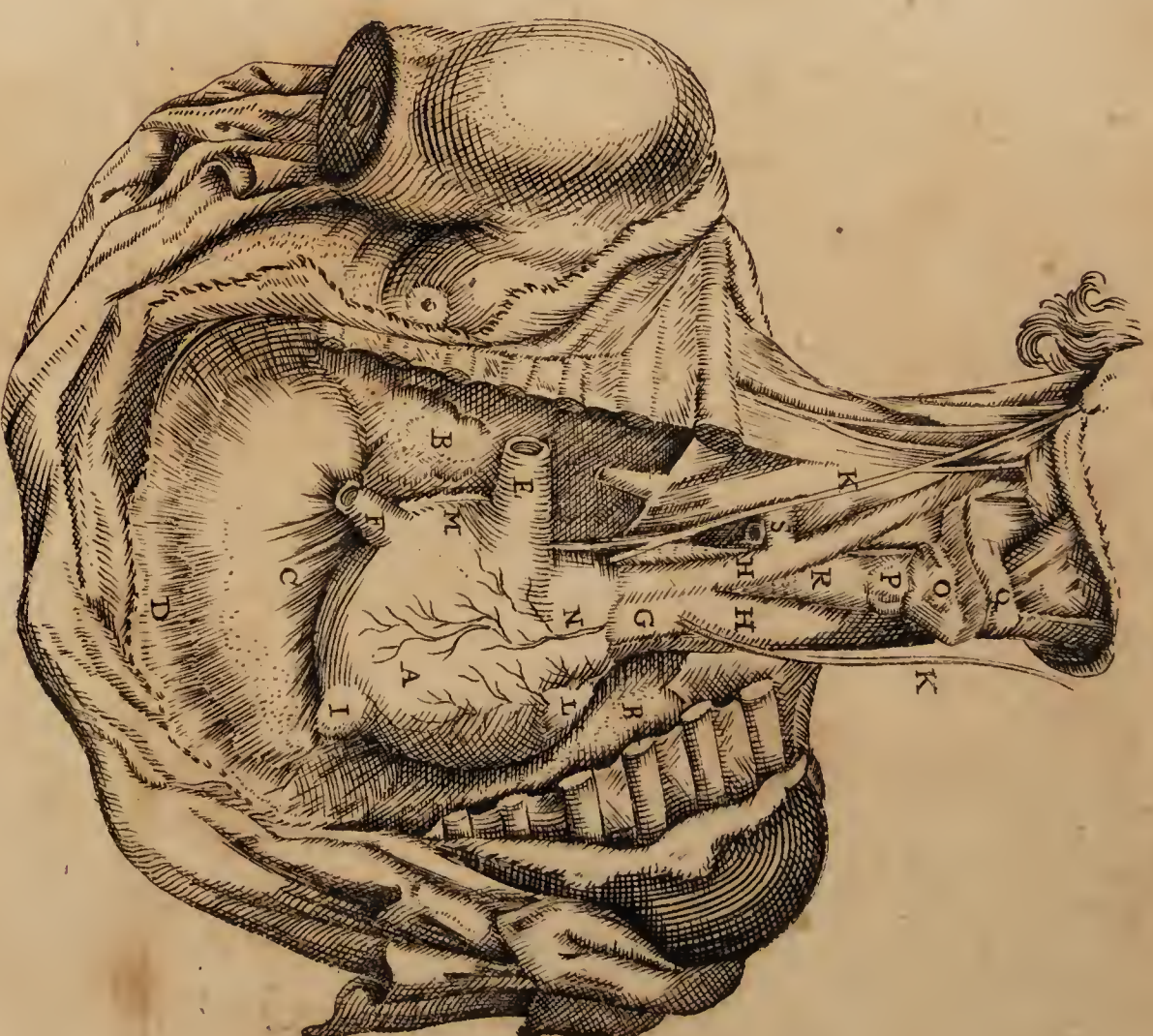


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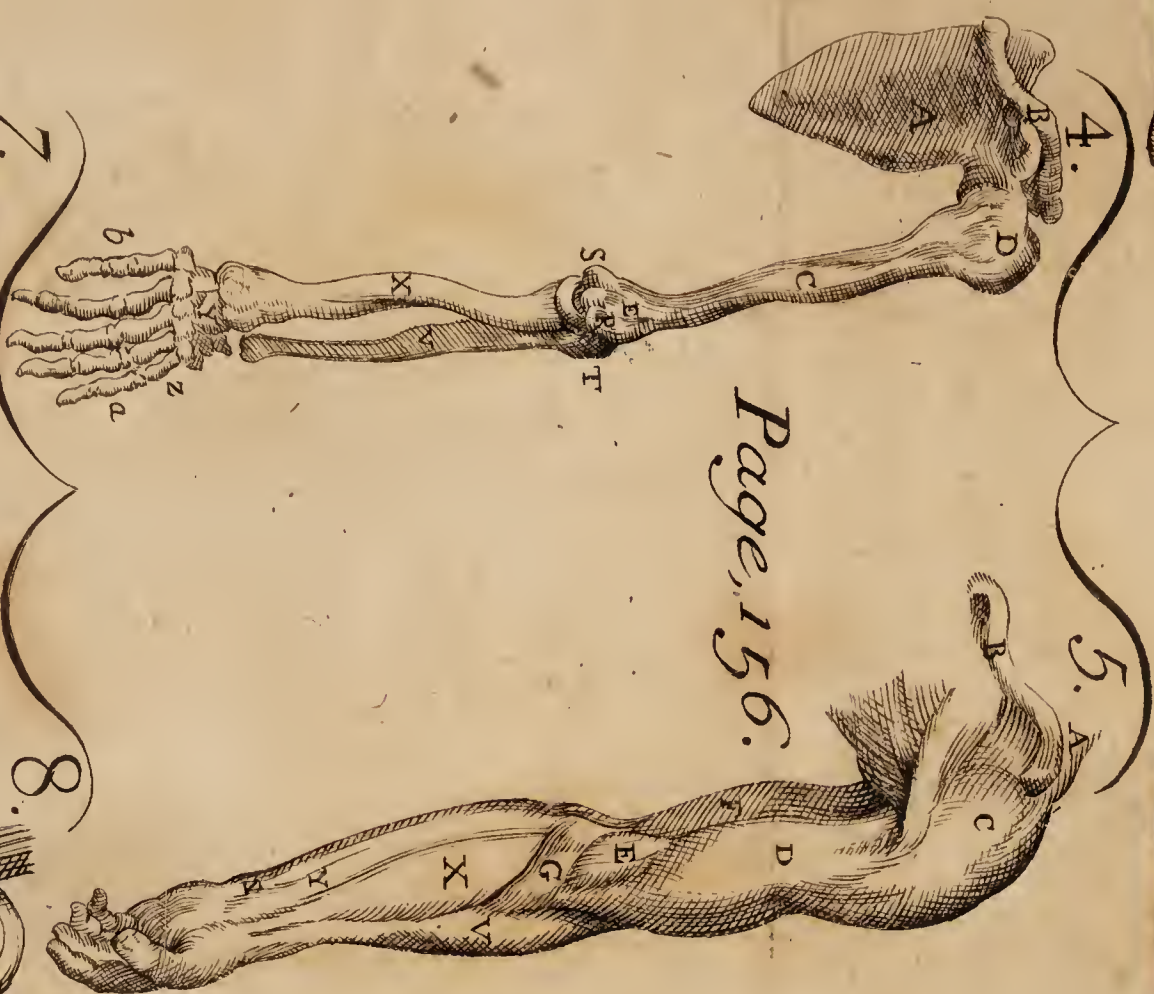


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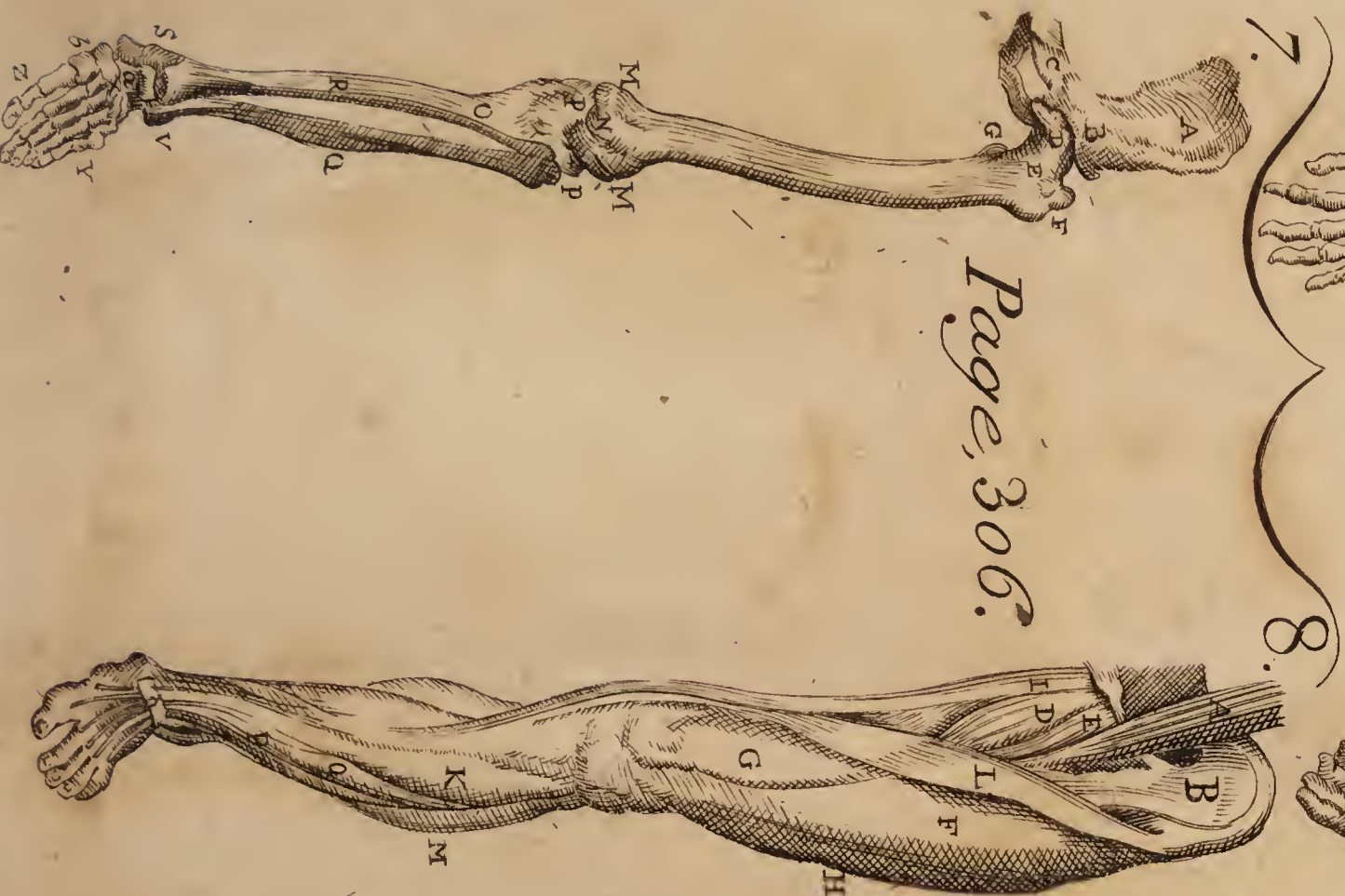
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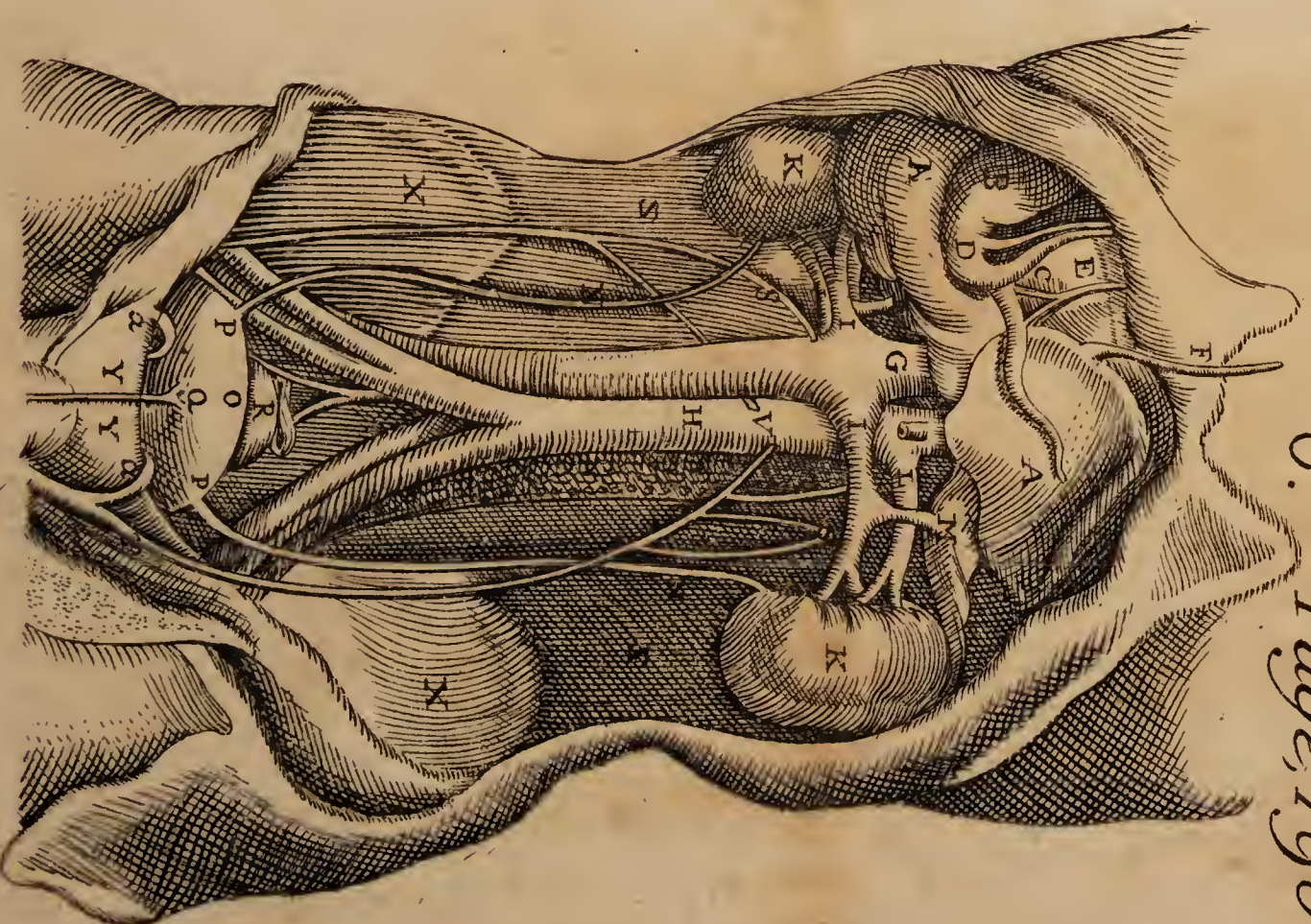
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- 4 Effluvia, from animal sources
- 5 Effluvia, from vegetable sources
- 6 Effluvia, from mineral sources
- 7 Effluvia, from human sources
- 8 Effluvia, from various sources
- 9 Effluvia, from various sources
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- 11 Effluvia, from various sources
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PART II.

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- 3 The Principles of the Art
- 4 The Principles of the Art
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PART III.

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| <p>H The descending Trunk of the great Artery.</p> <p>II The Emulgent Vein.</p> <p>KK The Kidneys in their natural Situation.</p> <p>L The Emulgent Arteries.</p> <p>MM The <i>Capsulæ Atrabilaria</i>, with the Branches of the Emulgent distributed into them.</p> <p>NN The Ureters descending from the Kidneys to the Bladder.</p> <p>O The Bottom of the Bladder.</p> <p>PP The Insertion of the Ureters into the Bladder.</p> <p>Q Part of the <i>Urachus</i>.</p> | <p>R Part of the <i>Rectum</i> cut off.</p> <p>SS The <i>Venæ Præparantes</i>; the right of which proceeds from the main Trunk, and the left from the emulgent Vein.</p> <p>T The <i>Corpus Pyramidale</i>, formed by the Union of the <i>Vasa Præparantia</i>, expressed on the left Side.</p> <p>V The Origin of the <i>Anterioræ Præparantes</i> from the Trunk of the <i>Aorta</i>.</p> <p>XX The <i>Ossa Ilia</i>.</p> <p>YY The <i>Os Pubis</i>.</p> <p>ZZ The Loins.</p> <p>aa The <i>Vasa Deferentia</i>.</p> |
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FIGURE VII.

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| <p>A The Cavity of the <i>Ossa Ilia</i>, forming a Part of the <i>Pelvis</i>.</p> <p>B The Hip-Bone, with the <i>Acetabulum</i>.</p> <p>C The <i>Ossa Pubis</i>, with the Holes.</p> <p>D The round Head of the Thigh-Bone.</p> <p>E Its Neck.</p> <p>F The great <i>Trochanter</i>.</p> <p>G The little <i>Trochanter</i>.</p> <p>MM The lower Extremity of the Thigh-Bone.</p> <p>N The <i>Patella</i>, or Knee-Pan.</p> | <p>O Both Bones of the Leg.</p> <p>PP The two superior <i>Sinus's</i>.</p> <p>Q The <i>Fibula</i>, or <i>Perone</i>.</p> <p>R The Spine.</p> <p>S The lower Process forming the Ankle.</p> <p>V The lower Part forming the external Ankle.</p> <p>X The seven Bones of the <i>Tarsus</i>.</p> <p>Y The five Bones of the <i>Metatarsus</i>.</p> <p>Z The Bones of the Toes.</p> <p>a <i>Astragalus</i>.</p> |
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FIGURE VIII.

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| <p>A The Muscle <i>Psoas</i> or <i>Lumbaris</i>.</p> <p>B The <i>Iliac</i>.</p> <p>D The <i>Triceps</i>.</p> <p>E The <i>Lividus</i>.</p> <p>F The <i>Rectus</i> in View, but hanging at the End of the Right Thigh.</p> <p>G The <i>Vastus Internus</i>.</p> <p>H The <i>Vastus Externus</i>.</p> <p>I The <i>Gracilis</i>.</p> | <p>K The <i>Tibialis Anticus</i>.</p> <p>L The <i>Longus Facialis</i>, or <i>Sartorius</i>.</p> <p>M The <i>Biceps</i>.</p> <p>O The <i>Extensor</i> of the great Toe.</p> <p>P The Muscle extending the four small Toes.</p> <p>Q The transverse Ligament of the Foot.</p> |
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TO ALL
YOUNG STUDENTS
IN
SURGERY.



Observation is the Mother of Arts and Sciences, from whence most Discoveries are derived ; to this we are indebted for their Progress, and by this alone they are brought to Perfection.

Mankind having observed, that there is nothing without Motion in the Frame of the Universe, and that every Thing endeavours to come to Perfection, before it begins to decay ; Mankind, I say, naturally curious in himself, greedy of Knowledge, and obliged also to satisfy his Necessities, began to trace the Paths of Nature, in the various Changes she undergoes ;

B

and

and then reflecting upon the Manner by which she acts, and uniting her different Operations, has not only endeavoured to assist, but I may venture to say, to redress and amend her.

Let us look as far distant as we can into past Ages, and we shall find wonderful Difficulties made plain and easy, by the happy Discoveries of Observers in those Days; who furnishing their Successors with Materials to improve their Works, seem to require they should bring those to Perfection, which had been so happily began before. We shall find that all Arts, as well those designed for Amusement, as such that are useful and necessary, were originally no more than a simple Imitation of Nature; therefore, the Beginning of Arts and Sciences, is owing to Observation, though Part of their Improvement is owing to Reflection.

Some Arts have been sooner brought to Perfection than others, where nothing more was required, than to study Nature, as she is represented to our Eyes, and to pursue the Imitation of her; from hence proceeded the sudden Progress made in Astronomy, Sculpture and Painting, whilst the Improvements in others moved more slowly. Surgery is one of this last Order, that owes its Rise to Observation; which has been since enriched by Reflection; and a Concurrence of both is absolutely necessary to compleat it.

Mankind, from his first Creation, has been liable to Diseases, and the first Notice taken of them falls into the Art of Surgery. When a
Wound

Wound has been received, it is observed that the Lips of that Wound some Days following, shall be glued together, when they approach each other: Hence, there was no great Difficulty in concluding, that the Lips of a Wound must be joined to save Nature the Trouble of the Re-union; from this Observation, the Invention of Sutures and Bandages proceeded. It had been remarked in the Formation of Abscesses, that after enduring abundance of Pain, a Matter different from that of Blood discharged by Wounds, was evacuated by a small Perforation in the Skin: Besides, that the Aperture being so very minute, it was with Difficulty evacuated; from whence Surgeons judged it proper to enlarge the Orifice, in order to promote a more free Evacuation. Others perceiving that small Stones passed thro' the Natural Passages, and were carried away by Urine, invented the Operation of Lithotomy, to extract those Stones which could not possibly be voided by the natural Channel. Thus the *Syntbesis*, *Diæresis* and *Exeresis* were originally invented only in Imitation of Nature.

Those who have since applied themselves to the Knowledge and Cure of Diseases, have in Progress of Time, added much to render Operations more compleat, and consequently more beneficial and useful; from whence proceeded the Invention of various Instruments, Machines and proper Bandages, with other Contrivances requisite to improve this Art in its Infancy.

Chirurgical Practice in Distempers, gave Rise to the dietetick Part in Physick for the Cure of Diseases; so that by the Knowledge of the Symptoms attending Impostumations in the external Parts, which are the Objects of Sight, a Judgment might be formed of internal: The Symptoms from an inward Pain affecting the whole Machine like the other. Hence it is evident, that Observations alone have served us for a Guide in the Discovery of those Truths, that would have escaped our Knowledge without them.

I confess, that Reflection has a considerable Share in the Advancement of Arts, which would be trifling without it; but Reflection is consequent to Observation. Nothing but uncertain Systems would be the Product of the One, whilst Truth is distinguished from Fal-lacy by the Effects of the Other. Let us therefore pursue our Observations, and then reflect upon what we have seen. By this Means great Men have appeared in the World, and have excelled others: Therefore I advise you to follow their Example.

Give me leave in this Place, to complain of the most eminent Surgeons in past Ages: They have been the Ornament of those Ages in which they lived, and useful to their Contemporaries; but, careless of their Successors, have carried all their Knowledge they had acquired by Experience, to their Graves. If they had been pleased to furnish us with an exact Recital of the Facts they had seen, the
Surgeons

Surgeons of this Age would, by that Assistance, have practised upon surer Grounds, both in treating Diseases, and performing Operations; and the Success with which They had met, would have rendered Us more bold and enterprising in what we undertake.

I would not be thought to rank myself in the Number of those great Men, but am willing to avoid the like Reproach. In the Year 1724, his Majesty granted Letters-Patent for the Establishment of six Demonstrators in Surgery, at the Amphitheatre of *St. Cosme*; and to unite the Theory with the Practice, ordered a Surgeon to be nominated every fifth Year, to conduct and exercise that Art in the Hospital of *La Charité*. Therefore I think myself obliged to publish the Observations I have made; and should think myself deficient in the Acknowledgement of the Honour conferred upon me by his Majesty's Nomination, should I neglect it. Those who have frequented that Hospital, were Eye-witnesses to a great Part of the Cases related in this Treatise.

I have added a great Number of other Observations in my own Practice, some of my Father's, and several that were communicated to me by those of the Faculty; for it would be unjust to omit, what is an Honour to them, and an Instruction to you. Every Thing that tends to the Preservation of Mankind, cannot be placed in too clear a Light; and it is also contrary to the Benefit of human Society to conceal an useful Science. Let us therefore

avoid imitating those, who, covetous of their own Knowledge, would by a sordid Jealousy, see the rest of Mankind plunged in Ignorance, that they may engross the Applause of the Publick, and debar others from seeing them operate, without reflecting that they formerly stood in need of Instruction themselves. What can more retard the Progress of Surgery? If all Surgeons had followed this Example, the Art would be still in its Infancy; and the Ignorance of former Ages would now remain. But we have happily met with Men, desirous to instruct their Pupils, that their own Knowledge may be continued in them; and thus, one adding fresh Observations to those he had received from another, they are transmitted to their Successors; from whence we have received that Light in Surgery, so conspicuous at this Time.

What Endeavours then ought we not to employ, to increase it? We have embraced a Profession, wherein the least Error is of Consequence: Since the Life or Death of the Patient under our Care is immediately concerned; therefore, let us diligently apply ourselves to the Performance of our Duty, not forgetting that we are answerable to God and Men, for the Errors we commit through Ignorance, when it is in our own Power to be instructed.



OBSERVATIONS

IN

SURGERY.



OBSERV. I.

Of a Tumour upon the Head of a new-born Child.



IN the Beginning of *September* 1739, a Gentlewoman sent a Child to me, of which she had been delivered two Days before. When it was born, a large Tumour appeared on the right Side of the Head, covering almost the whole Extent of the Parietal Bone. It was soft, without Inflammation, elevated an Inch ; as a Fluctuation was to be felt, I could not readily form a Judgment of the Nature of this Tumour, because I found a Circle in the Bone under my Finger at the Circumference of the Tumour ; from whence I imagined that the Ossification of the Skull was wanting in that Part : And therefore was dubious, whether the Tumour was

formed by an *Hernia* of the Brain, or whether it was a false *Aneurism*, occasioned by the Rupture of some small Artery. You know, that in this kind of *Aneurism*, the Pulsation is not so strong as in the True, where the Artery is only dilated. To be thoroughly confirmed in the Nature of the Tumour, by the Progress it might make, I suffered it to remain in this State for six Days, and then found it in the same Condition, without any Increase: But as false *Aneurisms* generally augment from Day to Day, I believed the Tumour not to be of that Species. I have seen several upon the Head of Children occasioned by Blows or tearing the Skin when they were fighting, by pulling off the Hair, which I always observed to increase daily, by the Tumours being continually supplied with Blood from the Artery. As I was now convinced by this Particular, and by the Circle I had felt in the Bone, that the Tumour in Question was an *Hernia* of the Brain, I ordered thick Compresses dipp'd in Brandy to be applied, and pressed only by the Cap, telling the Mother not to moisten them again for twenty-four Hours, that they might harden when dry, and occasion a slender Compression. By this Means the Tumour entirely disappeared in the Space of a Month, during which Time, the Temporal became ossified, as I perceived by the daily Increase of its Hardness; and the large Circle I had felt at first, was reduced to a small one in the Center, which entirely disappeared in ten Months, and the Temporal became ossified, and perfectly hard.

Though I looked upon, and treated this Swelling as an *Hernia* of the Brain, I leave the Reader to judge of its Nature; but the two following Remarks may lead us to the true Knowledge of it.

Had

Had it been a false *Aneurism*, I easily conceive, that the Compression might prevent the Collection of fresh Blood ; but I cannot imagine, what became of that contained in the Tumour, which was at least three Ounces ; and Experience teaches us, that such a Quantity of extravasated Blood is not easily dispersed.

If it was an *Hernia* of the Brain, the slight Compression made upon it, restored the Fibres of the dilated Vessels to their natural Elasticity ; therefore the *Laminae* of the Bones, not extending beyond their proper Limits, grew hard and ossified.

It may perhaps be objected, that an *Hernia* of the Brain is impossible ; since the Vertex, though it is some Years before it ossifies, is never attended with an *Hernia*. This Objection falls of itself, if we consider that the Duplication of the *Dura Mater* forming the *Falx*, serves as a Bridle to restrain the Brain in its natural Situation.



OBSERV. II.

Of a Fistula in the Parotide Gland.

ABscesses formed in the Body of the Parotide Glands cicatrise with Difficulty, by Reason of the *Saliva* they continually discharge ; and no general Rule can be laid down in what Manner they ought to be treated. The following Observation may furnish us with some Ideas in certain Cases, wherein the Method I have taken may be put in Practice.

A young

A young Man, aged about Eighteen or Nineteen, was sent to the Hospital of *La Charité*, who had a considerable Inflammation in the right Parotide. I ordered him to be bled three Times in the Space of Twenty-four Hours, and emollient Cataplasms to be applied and often renewed.

If these three Bleedings had been performed at the Beginning of the Inflammation, they might perhaps have suddenly stopt the Progress of the Tumour; but instead of that, it had a Tendency to Suppuration.

I opened it to the full Extent, when the *Pus* was collected, and the Abscess digested in the Beginning like others, without any Thing particular; but towards the End, when a small Space remained to be cicatrised, it grew obstinate. For three Weeks or more a large Quantity of *Saliva* was discharged by this small Aperture; especially when the young Man eat, which made me apprehend it would remain Fistulous.

To oblige Nature in some Measure to perform her Functions, I put a Pledget of Lint dipp'd in Brandy upon the Aperture, with four Compresses upon that, gradually increasing in Magnitude, and supported the whole with a Bandage moderately firm; having, very luckily, sufficient Room to make a Compression. This Dressing was not removed for five Days; and that Repose might second my Intention, I advised him not to move his Jaw, forbidding him to speak, and nourished him only with Broth; by which Means, when I came to remove my Dressings the fifth Day, I found the Fistula cicatrised.

This might be a small Gland that furnished such a Quantity of *Saliva*; (for the Parotide is not a single Gland, but of the Conglomerate Kind, and composed of many;) I say, this might be a small Gland,

Gland, which by a strong Compression, continued upon it for several Days, might grow dry and useless ; or the *Saliva*, being prevented from flowing through the Wound, took its ordinary Course, and was discharged into the Mouth.



OBSERV. III.

Of a Fracture in both Jaws.

THE greatest Diseases soon become only slight Disorders, if Nature acts in Concert with the Surgeon ; and the Surgeon, in Concert with her, makes a proper Use of the Assistance she affords.

A Man was brought to the Hospital of *La Charité* on the 5th of *January* 1729. who, as he was driving a Cart the Night before, heavy laden, was beat down by a Gentleman's Horse, and fell under his Cart Wheel, which pass'd over his Head from the *Processus Mastoïdes* over the upper Jaw beneath the *Processus Zygomaticus*, and over the left Arm.

By this Accident a Part of the upper Jaw was shatter'd in such a Manner, that the four last of the *Dentes Molares* with their *Alveoles*, to which they still adhered, were forced into the Mouth, and lodged under the Roof ; which could not happen without a Fracture of the *Os Maxillare* ; yet the Palate and the Gums remained entire. The lower Jaw was likewise fractur'd in two or three Places near the *Symphysis* of the Chin.

This

This was all I could discover in the Jaw when he was brought to the Hospital, by Reason of an *Erysipelatous* Swelling that spread over the whole Side of the Face. The Radius of the left Arm was also broke.

As this Accident happened six Leagues from *Paris*, they applied to the nearest Surgeon in the Neighbourhood; who, after reducing the Fracture of the Arm, bled the Patient that Night, and the next Day he was brought to *Paris*.

I began by taking off the Dressing on the Arm, to enquire into the Nature of the Fracture, which I found well reduced, and then dressed it again according to Art.

To keep the fractur'd Pieces of the inferior Jaw in a proper Situation, I made Use of Compresses suitable to the Occasion, and over them, a Bandage called the *Sling*, from its Resemblance to it.

With Respect to the Fracture in the Upper Jaw, the Tongue, which touched the Teeth, prevented their remaining fixed to the Roof of the Mouth; but were very troublesome to him, being alternately moved by the Cheeks and the Tongue.

The Patient being of a strong and replete Habit of Body, and the *Erysipelas* considerable, I ordered him to be copiously bled, and the Bleeding to be repeated at ten o'Clock that Night; his Nourishment being only Broth, which he suck'd in through a Pipe, to avoid the Motion of the Jaw. The next Morning he was bled again, and the only *Topical* Application was, to foment his Face often with warm Water and Brandy, and then, considering the Coldness of the Weather, to dry it with a fine Piece of Linnen. When his Face was dried, they covered it with hot Linnen Cloths. The third Day I ordered him to be bled in the Foot, which abated the *Erysipelas*: And then thought

thought it Time to secure the fractur'd Pieces of Bone as well as I possibly could.

That all might be secure, I thought to make Use of the Teeth themselves, as they were not broke, but firm in the *Alveoles*; and that it was the *Os Maxillare* itself which was fractur'd: Therefore I resolved to fasten the loose Teeth to those that were not: Being little acquainted with this Method, I thought proper, for the Benefit of the Patient, to desire Mr. *Capron*, Operator for the Teeth to his Majesty, to go to the Hospital, and perform this Operation; who fastened the four *Dentes Molares* that were loose, to the Fifth that was firm; and the Patient declared instantly, that they were as fast as they naturally were before this Accident. He likewise tied the four *Dentes Incisores*, and the two *Canini* of the lower Jaw, to secure the Pieces of that Jaw, which was only fractured in its anterior Part.

Six Days after he had been in the Hospital, I perceived *Pus* issuing from his Nostrils on that Side, which seemed to proceed from the *Sinus Maxillaris*, and some likewise from the Ear on the same Side. The *Os Maxillare* being fractur'd above the *Alveoles*, I imagined that the Fracture might extend to that *Sinus*, and that the Membrane with which it is lined might have suffered. There appeared near the *Zigoma* at the same Time, by the Wing of the Nostril, a slender Fluctuation, and the *Pus* there lodged made its Way through the Skin before Morning. I introduced my Probe into this Orifice, and passed it into an empty Space, that extended to the Fat under the *Zigoma*. I therefore opened it to the full Extent, and then discovered a Cavity, thro' which my Probe entered into the *Sinus Maxillaris*, from whence a *Pus* issued. I took Care to thrust it no farther for fear of disturbing

sturbing Nature, who had been of such singular Service hitherto, and dressed the Wound lightly. After the fourth Day, the *Pus* contained in the *Sinus* was not evacuated by the Wound, but continued to discharge itself by the Nose and Ear, and the Wound became a simple one, was dressed as such, and healed in eighteen Days; but before it was perfectly cicatrised, the Flux of Matter from the Nose and the Ear ceased.

The Thread made Use of to fasten the Teeth fell off in ten or twelve Days, and was not afterward renewed; because the Pieces of Bone seemed to be fixed in their Places; and the Patient went from the Hospital the eighth of *February* perfectly cured.

R E M A R K S.

In all compound Fractures, the Surgeon ought to have a particular Regard to three essential Things.

First, To keep the Bones in their proper Situation when reduced.

Secondly, To prevent or cure the Inflammation, which may be attended with innumerable Accidents.

Lastly, To take Care that the *Pus* has a free Discharge, when the Inflammation is succeeded by an Abscess. By observing these Rules, if the Patient is of a good Constitution, the rest may be expected from Nature.



OBSERV. IV.

Of a Distemper on the Tongue; communicated by Mr. Tavernier, sworn Surgeon at Paris.

A Distemper once understood is almost cured : Which Expression is the more just, as it appears daily to agree with Experience. Therefore it is a Matter of real Importance to every regular Surgeon, not to undertake the Cure of a Distemper, till he is acquainted with the Cause. By this he acquires the Knowledge of distinguishing one Distemper from another, and not to confound one that is simple with that which is complicated, the Venereal from that which is not so, and consequently to provide proper Assistance in all Cases.

Some Years ago, a Lady about forty Years of Age, who had enjoyed a perfect State of Health till that Time, complained that her Tongue was a little painful ; but the Pain not being very violent, she neglected it for several Days : At length growing uneasy that she still continued in the same Condition, she consulted the Surgeon belonging to the Family, who found her Tongue ulcerated on one Side. These Ulcers appearing trifling to him, he treated them in the ordinary Manner, without endeavouring to discover the Cause. The Remedies he applied, were undoubtedly too sharp ; for the second Day after their Application, the Tongue was exceedingly swelled, and the Ulcers began to spread and become very large, the neighbouring Glands being likewise affected ; in short, the Distemper

stemper, instead of decreasing, was considerably augmented. The Surgeon amazed at this, ceased the Application of his Medicines, and bled the Patient, by which Means the Accidents disappeared. The Lady, however, dissatisfied with his Proceedings, applied herself to an Empirick, who examined the Ulcers, and disapproving the Practice of his Predecessor, promised a Cure.

He looked upon the Distemper to proceed from a Venereal Cause, therefore exhibited Antivenereals, and among others of that Class, abundance of *Panacea*. The Salivation, which must consequently succeed the Use of such Medicines, alarmed the Patient to such a Degree, that he desisted using them any longer: Nevertheless, he urged so many Reasons to prove the Necessity of them, that she was obliged to submit.

The Salivation continued for three Weeks without any apparent Success; which fatigued, and disheartened the Patient, that she resolved to take the Remedies no longer, being greatly mortified, that she had been the Dupe all this Time. The Empirick, perceiving that the Confidence she had placed in him before began to decline, proposed a Consultation, and brought several of his own Stamp, who, so far from disapproving his Practice, jointly confirmed it; adding further, that the Remedies already administered, were not sufficient to conquer a Distemper so obstinate, and that she must undergo the *Grand Remede*.

This Sentence so terrified her, that surprized both at the Distemper they had declared it to be, and at the Remedies, she discharged them all, and sent for the late Mr. *Arnaud*, declaring her Case from the Beginning, and the different Progress that had been made. He examined the Case, and found the whole Mouth and Salivary Glands
turgid

turgid and ulcerated, the Tongue was very much swelled, and besides, loaded with many Ulcers, which appeared to him in a bad Condition. He interrogated the Patient, and finding no Suspicion of the *Lues*, according to her Declaration, he imagined that all this Disorder might proceed from bad Teeth: Therefore he began to examine them singly, and in the Enquiry, found that two of the *Molares* pricked his Finger, the Superficies whereof were pointed and uneven. From hence he concluded, that the whole Disorder of the Mouth, was the Consequence of the Medicines administered, observing at that Time, that these Teeth were on the same Side as the Ulcers.

His Opinion was, that the Patient should begin by having the Asperities of these Teeth taken off by a File. The Plainness of the Prescription, added to the Confidence she placed in Mr. *Arnaud*, made her readily consent to his Advice. The *Sieur Laudumier*, a Man expert in this Art, performed the Operation, which occasioned an Alteration in the Ulcers the very next Day; and tho' this Alteration was slight, it afforded us Hopes of a Cure. The Patient was purged two or three Times, not so much for the Distemper in the Mouth, as to restrain a small Spitting that remained. Afterwards, by the Use of simple detergent Gargarisms, the Ulcers cicatrised, the Swelling of the Glands diminished, the Mouth was entirely in Order, and the Patient recovered in less than nine Days, by a Remedy as simple as the Cause of the Disease.

We may therefore conclude from this Observation, that most Distempers are obstinate, for want of being acquainted with their Causes; whence arises the Difficulty of applying proper Remedies.

This Accident is very frequent, especially amongst the common People, who generally neglect the Care of their Teeth; and I have known many come to the Hospital for my Advice, with Ulcers and Tumours upon the Tongue, which proceeded from no other Cause than the Wounds it had received by striking against the Asperities of rotten Teeth. Therefore, by removing the Cause; that is to say, by drawing those Teeth which occasioned the Ulcers, the Distemper generally heals without any Application.



O B S E R V. V.

Of an Ulcer upon the Face, communicated by Mr. Leaulté, sworn Surgeon at Paris.

WHEN the foul Leven of Distempers, whether Venereal, Scorbutick, or Scrophulous, remain long concealed, without manifesting themselves by their proper Symptoms or Characters, they are often declared by extraordinary Accidents, and always so fatal to the Patient, that they are difficultly conquer'd.

An Officer of the King's Household, aged about 72, taking a Party of Pleasure in *Provence*, was suddenly attack'd with a violent Pain in the superior Jaw, between the Bone of the Nose and that of the Cheek, above the *Dentes Incisores* on the left Side. The Pain remaining, he was bled, which, by the Assistance of some generous Medicines, appeased the Pain, without the Manifestation of any Tumour.

The

The Pain however returned again, though not so violent, or of so long a Duration as the former. He was bled a second Time, which, with other Remedies administred, relieved the Pain.

About two Months after, the Time of the Review of the King's Household happening, the Patient took the Opportunity of coming to *Paris* for Advice in his Dislemper; and being informed, that it might be occasioned by a rotten Tooth, he went to a Tooth-Drawer, who finding some of them in that Condition, drew out the first of the *Molares*, joining to the *Canini*; he stopt the Bleeding with Difficulty, and then the Patient return'd to *Versailles*.

The Day following he returned to *Paris*, having endured abundance of Pain; an Excrescence being formed in the *Alveol* from whence the Tooth was drawn, and the Gums on that Side considerably swelled. He went immediately to the Person who had drawn his Tooth, who endeavoured to consume the Excrescence by the Hole in the *Alveol*, both by *Potential* and *Actual Caution*: But the Distemper rather increased than diminished, and the Gums were more swelled; so that a Friend of this Gentleman's, advised him to take the Opinion of a Surgeon of his Acquaintance, who finding his Mouth in a very bad Condition, prescribed a proper Regimen of Diet, antiscorbutick Gargarisms, and to return Home for the greater Conveniency of pursuing this Course.

The Tumour increased notwithstanding, and extended along the Jaw to the last of the *Dentes Molares*, both within and without, and reaching the *Os Palati*, was so incommodious to the Patient, that he could neither eat or speak without Pain. He did not undergo much; but, in the Space of two Months, the Tumour spread between the Nose

and the Bone of the Cheek to the external Angle of the Eye, which seemed to project on that Side next the internal Angle.

Being in this Condition, he could no longer conceal his Distemper, the very Idea of which he endeavoured to avoid, by seeking to divert himself. His Friends however roused him from the melancholy Thoughts upon his Disease, and prevailed upon him to return to *Paris* for Advice. A Friend of his and mine wrote to me, desiring that I would take him under my Care at home, and assist him, not only with my own Opinion, but my Friends. This was on the first of *December* 1719.

He acquainted me with the Beginning of his Distemper, and all I have related before; then I examined the Tumour, which at this Time covered the whole Palate; all the Gums to the *Masseter* were swelled, and the Tumour extended towards the *Os Maxillare*, and along the Nose, whose Figure was alter'd by it, being press'd inwards: Moreover, it reached to the Corner of the Eye, which was likewise distorted, as I said before.

I found this Tumour not to be humoral; but of the Nature of those fungous Excrescences, proceeding from the *Caries* of the Bones of the Part. I discovered two *Sinus's*, one by the Hole of the *Carieted Alveol*, tending towards the *Os Maxillare*; the other at the Bottom of the Palate, opposite to the *Dentes Molares*, terminating at the *Os Palati*; from whence some Splinters had been already separated, and a bloody Serum issuing from it.

I enquired of the Patient, whether he had not been afflicted with the *Lues Venerea* in his Youth; whose equivocating Answer not affording me sufficient Reason to determine either on one Side or the other, I resolved to have Messieurs *Leaulté* the Physician, *Gervais*, *Arnault*, *Dargeat*, and *Petit*,

to whom I reported the whole Case, as I related it before. Upon the Result of this Conversation, it was determined, that the Excrescences appearing externally, proceeded from the *Sinus Maxillaris* on that Side, which by its considerable Increase had pressed the Bones outwardly, and altered the natural Figure of the Parts. It was resolved in this Consultation, to lay the *Alveoles* bare, in order to judge what Method should be taken with the Tumour that had reached the Orbit; and, the Patient should be prepared in the *Interim*.

He was bled that Evening, purged the third Day, and the fourth was left at Rest.

During this Time, abundance of Serosity was discharged, and the Patient complained of a Pain towards the *Os Palati*, from whence I extracted a Splinter of Bone that appeared.

The fifth Day we ordered a Tooth to be drawn, which was engaged in the fleshy Excrescence on the Gums. We examined whether there was no Communication between one *Alveol* and the other, by the Hole of that from whence the Tooth was drawn: But found none there, or in any other Part; the next Tooth and the *Alveol* being perfectly found. After I had discovered the first *Sinus* by my Probe, which passed along the external Surface of the *Os Maxillare*, to the Tumour between the Bone of the Cheek and the Nose, I made a crucial Incision thro' the Skin, dissected the hard Body, and separated it, as well from the Skin, as from the external Surface of the Jaw, as low as I possibly could; I made a Communication into the Mouth, by separating the Lip from the Body of the *Alveol*, and brought away the Tumour, with a great Part of that upon the Gums, as well externally as internally on that Side next the Palate. We proceeded no farther at this Time,

and I dressed the Patient by preserving the Communication of the external Orifice into the Mouth.

The sixth Day, I only washed his Mouth with Gargarisms, without removing the Dressings.

The Seventh, I only separated some loose Flesh from the internal Tumour. All this Time we were insensible of the State of the Bones; but some Part of the *Carnous* Substance that I had left upon the external Surface of the *Os Maxillare* seemed to move.

The Eighth, I was obliged to dress him, upon Account of the foetid Stench he felt in his Mouth. Upon Examination with my Probe, I found that it was easily admitted into the other Part of the Tumour, that began to putrify; my Probe entered even beyond the external Surface of the *Maxillare*, since it seemed to be lost in a void Space. I made an Incision into this putrified Flesh, and found several small Pieces of Bone under my Instrument, which I extracted. The Parts being thus dilated, I passed an hollow Probe into the Mouth, above the *Alveol* belonging to the last of the *Dentes Molares*; which gave me the Opportunity of taking off the whole spongy Body, from the internal Surface of the *Alveols*, cutting away all that I could, and what I thought proper should be removed. I dilated this Passage, to preserve the Communication between this and the *Sinus Maxillaris*, which might be carious, as well as those Bones framing the *Alveoles*, and thus finished the Dressing.

The Ninth, and several Days following, I dressed him as usual, contriving to consume the Hardness, and to absorb the Moisture that flowed abundantly from all these Parts.

The second of *January* 1720, by the Opinion of those Surgeons I had consulted before, I extirpated

pated all that Part of the Tumour in the Mouth that possessed the anterior and left Side of the Gums, to the Border of the Roof of the Palate, with three Tumours that were upon it; which, as I said before, were grown flat, and in a tolerable Form: But on the external Part of the Face, towards the great *Canthus* of the Eye, and upon the inferior Border of the Orbit, a small remaining Tumour, which I had not removed during the former Operation, was so considerably increased, that it was concluded to extirpate it; which was however deferred to the next Day.

The Ninth, Mr. *Marechal*, first Surgeon to his Majesty, came to see the Patient, whose Case was then re-examined; and it was determined in this Consultation, that not only all the Excrescences possible, but even the carious Bones themselves should be removed.

This Determination, and the Manner whereby it was to be executed, by employing Scissors and Chissels, made so strong an Impression upon the Mind of the Patient, before whom it was spoken, that he concluded from that very Moment he should die, and held no other Discourse to his Friends.

An Hemorrhage followed the next Night, at the inferior Part of the Wound, from the Artery that passes above the *Alveoles*, which I conquered by Means of proper Stypticks and Compression; but the Patient become more alarmed and fearful.

In the Morning I separated the Tumour at the Corner of the Eye; which extended along the Nose to the Border of the Orbit, loosening the Circumference of all that filled the *Sinus Maxillaris*, and entered the Orbit, without separating what most adhered to the Bottom, designing to perform it afterwards; being unwilling to fatigue the Pa-

tient, who had lost a considerable Quantity of Blood, part whereof ran into his Throat.

These last Operations gave us a thorough Light into the dismal Disorders of those Parts; for by them I perceived that all the Bones of the Nose, the Orbit, and the *Os Maxillare* were destroyed.

Some Hours after, a fresh Hemorrhage succeeded, which I could not overcome without new Dressings, and the Application of Stypticks.

From this Moment, the Patient remained extremely dispirited, and the more, from the Quantity of Blood he had lost: This Gentleman, who had hitherto been strong and vigorous, and able to rise when he was dressed before, or when any Operation was performed, had not been out of his Bed since the last Consultation.

The Eleventh in the Evening, he was seized with a violent Vomiting and *Diarrhæa*, and in the Night with Shiverings and a Fever; and died the 13th.

The Day after his Death, I examined into the Particulars of his Distemper, by raising the whole Skin that covers the Face, and separated the Eye from the Bottom of its Orbit, which I found entirely destroyed, and without Consistence, and even the Basis of the *Cranium* on that Side. By carrying my Finger along the optic Nerve, I was very much surpris'd to find that it passed without any Resistance into the Brain; from whence proceeded a large Quantity of purulent Matter. All the Bones of the Nose, Cheek and Jaw were carious, and all the Sinus's filled with carnous Excrescences to the Corner of the Ear: In short, there was a total Destruction of all the Parts, both carnous and osseous.

Seriously reflecting on that deplorable Case, let the Disorder be either scorbutick or venereal, what could

could be done? The Remedies against either of these Distempers, could they have prevailed in such a Demolition of Parts? No.

Hence I have Reason to conclude, that when a bad Leven of any Distemper whatsoever, lodges or is concealed in the Blood, it is always attended with dismal Accidents, difficult to moderate, and more difficult to conquer.



OBSERV. VI.

Of the Extirpation of a Polypus.

A Polypus is a Distemper so much the more difficult to cure, as it often becomes impossible to extract its Roots; and the daily Difference we perceive in their various Kinds, which proceeds from their Nature, Extent, and Figure, and from the Parts whence their Roots are derived, is the Occasion that no certain Rule can be proposed for the Manner of treating this Disease. Observations can only furnish some Ideas to those that read them; and it properly belongs to the Surgeon's Genius to conduct Affairs of this Nature, and to contrive in what Manner he ought to proceed upon this Occasion. I shall give you a few Observations to add to those formerly published, or to such as may be published hereafter upon this Subject.

In the Month of July 1725, a Man aged about Thirty, was received into the Hospital of *La Charité*, who had a Polypus in his left Nostril, that filled the whole.

This Polypus strictly adhered to the *Membrana Pituitaria*, upon the inferior *Lamina Spangiosa*, and
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to the Part formed by the *Os Maxillare* and the *Os Palati*, at the lower Part of the Cavity of the Nose.

The Polypus was so far increased in eighteen Months Time, that it pressed the *Septum Narium* into the other Nostril, so that he could hardly breathe through the Nose; and the inferior *Lamina Spongiosa* pressing against the Wing of the Nose, prevented the Tears from flowing in the Nasal Channel; from whence a Swelling arose in the *Cystis Lachrymalis*, and the Tears returned back again by the *Puncta Lachrymalia*.

The Patient having been prepared by several Bleedings and a proper Diet, I placed him in an open Light to perform the Operation. I could not conveniently introduce the perforated Forceps, by Reason of the Adherence of the Polypus to the Wing of the Nose: Therefore I divided this Adhesion with a Bistoury, and then introduced one Branch of the Forceps against the *Septum Narium*, and the other against the Wing of the Nose. At this first Essay I extracted only a Part of the Polypus, the Substance of it being soft and easily breaking. I attempted several Times to extract the whole; and after many Trials, brought away about the Bigness of a Chesnut. The Air not yet passing through the Nose, I imagined that the whole was not extracted; and upon introducing my Finger into the Nostril, found that the Roots of the Polypus adhered to the *Vomer*, and upon the fleshy Part that terminates the Arch of the Roof of the Mouth.

I could extract no more with the Forceps; and therefore allowed the Patient a little Respite: But being unwilling to leave the Operation imperfect, which would have rendered it useless, I resolved to pass a Seton into the Nose, that the Part I could
not

not extract, might fall off by Suppuration. Tho' the Hemorrhage was inconsiderable, I ordered the Patient to be bled again.

In order to introduce the Seton, I contrived a Pair of flat perforated Forceps half bent, and about four Inches long from the Rivet to the End; and with these Forceps I extracted another Piece of the Polypus.

To pass the Seton, that was composed of 12 or 15 Threads of Cotton, I caused it to be tied to the Fore-finger of my Left-hand, so that it might be easily untied. I introduced the Forceps up the Nose, to the Extremity of the Arch that terminates the Roof of the Mouth; then thrusting my Finger, about which the Cotton was tied, to the Bottom of the Mouth beyond the *Uvula*, as high as I could, and pressing the Forceps forward to meet the End of my Finger, I laid hold of the Knot in the Seton with my Forceps, and drew it by the remaining Part of the Polypus. Then, withdrawing the Forceps, I brought one End of the Seton out through the Nostril, whilst the other passed by the Mouth. The End of the Seton that came through the Mouth was a little troublesome to the Patient at first, but in a few Days he was accustomed to it. After I had armed the End of the Seton, that was to stay in the Nose, with Digestives, I drew it up the Nostril by the other End that came out of the Mouth; and this was done Morning and Night. But lest drawing the Seton backwards and forwards should irritate the Bottom of the Roof of the Mouth, I passed the End of my Finger beyond the *Uvula*, which served as a Pulley to the Seton. Besides this, I sometimes injected Barly Water up the Nose, and thrust a Dossil up it armed with Digestives.

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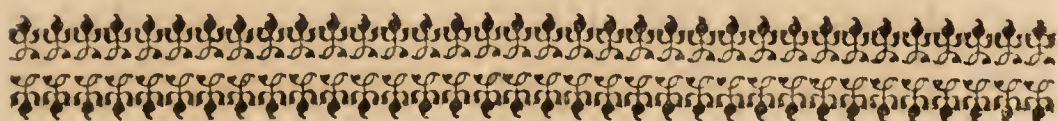
I dressed him in this Manner for twenty Days, which produced a large Suppuration. When the Remainder of the Polypus was wasted by this Means, which I judged to be effected by the free Passage of the Air and Injections used, I omitted the Digestive, and substituted a Desiccative Water in its stead, made with Copperas and Verdigrease. This I injected, and moistened the Seton with it. In short, the Patient went from the Hospital in a Month's Time perfectly cured in Appearance; and it is probable the Polypus did not return, as I heard nothing of him since.

REMARKS.

A Seton may be of the same Service, even when a Polypus adheres to the superior Part of the Roof, toward the Bone of the Nose; since it will serve to introduce Dossils armed with Medicines, by fastening them to it.

The Seton will be likewise very useful, when the Extraction of a Polypus is succeeded by a large Hemorrhage. In this Case the Blood running down the Throat is apt to excite a Cough and a continual Spitting, which is very troublesome to the Patient; for the more he coughs, the more he bleeds, and this prevents the Application of proper Remedies to stop the Bleeding. Therefore the principal Point is, to hinder the Blood from falling into the Throat; which may be easily performed. To this End, you must pass the Seton with two Dossils fastened to it, the one dry, and the other dipped in styptick Water to be drawn into the Nose; which may be soon performed. The dry Dossil, by pulling the End of the Seton that hangs out at the Nose, will be drawn into the Mouth, and stop the Passage next the Throat,
so

so that the Blood cannot run into it. Then drawing it farther, the first Dossil will clear the Nostril of the coagulated Blood it contained; and the second dipped in the Styptick, being fastened to the Seton an Inch from the Former, may be drawn to the Place where the Polypus adhered, and stop the Hemorrhage.



OBSERV. VII.

Of the Extirpation of a Polypus of a different Nature.

THERE are a Sort of *Polypi* of such a Nature, that independently from the Impossibility of their being extracted, may be attended with such an Hemorrhage, that I would not advise it to be attempted. Those of which I speak, are schirrous *Polypi*, whose Roots are generally large, and as solid there, as in the Substance itself. The Patient requires some Relief notwithstanding, as he perceives his Distemper to increase; and with Reason fears that it may in Time become incurable. If the Surgeon undertakes the Cure in any Manner whatsoever, he ought first to make such a Prognostick, as may secure his own Reputation, and that of the Art; for suppose he succeeds in the Performance, there may be Danger of its Return.

In the Kind of which I now speak, if you hazard the Extirpation, it must be done without Violence; and if the Polypus adheres too fast, you must be contented with amputating a Part, and leave the Remainder to Suppuration.

In the Month of *July* 1726, a Man was sent to the Hospital, who had a schirrous Polypus which filled the whole left Nostril, and Part of it, about the Bigness of a Nut, grew out of the Nose, spreading like a Mushroom: Moreover, it extended towards the Throat, and formed a large Tumour behind the *Uvula*, and upon the fleshy Part of the Roof of the Mouth, as big as a Golden Renette. The Extent of this Tumour pressed that Part of the Roof of the Mouth so forward, that the Point of the *Uvula* was even with the third of the *Dentes Molares*. The Patient had a Difficulty in speaking, but more in swallowing; for the Tumour not only prevented a free Motion of the Tongue, but hindered the Passage of the Aliments. The Description I have given of the Figure of this Polypus seems to prove it impossible to be extirpated, since it was larger at each End than in the Middle: Nevertheless, when I had prepared the Patient by two plentiful Bleedings, I undertook the Cure by performing the Operation.

In order to perform it, I took hold of the Part hanging out of the Nose with my Fingers, and drawing it to me without pulling it off, which was not my Intention, I cut off as much as I could in the Nostril. By the Hardness of this Part, which was as callous as a schirrous Gland, I could judge of the Nature of the Rest of the Polypus. It bled little, which I soon stopped with a Dossil of Lint only.

Before I offered to operate upon the Part at the Bottom of the Mouth, I was willing to be satisfied, whether it had a very strong Adhesion or not. Therefore, putting my two Fore-fingers into the Mouth, I embraced the Tumour, and pulled it forwards; which not being loose, I resolved to separate it with a Knife as well as I could.

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I was tempted to divide the fleshy Part of the Roof of the Palate near the *Uvula*, as some Authors advise; but it was so far pressed into the Mouth by the Tumour, that it made a Right-Angle with the anterior Part of the Palate: For which Reason, it was less Hindrance to me in the Operation I proposed to perform; and therefore I left it intire.

I introduced a Pair of semi-curved Scissors to the Bottom of the Mouth, and having placed the Branches as high as I could, one against the anterior Part of the Tumour, between that and the *Uvula*, the other against the posterior Part, so that they embraced a large Portion of the whole, I placed the Fore-finger of my Left-Hand against the right Side of the Tumour, as well to prevent its escaping from the Scissors, as to press it between the Edges of them, whilst I closed them together. The Tumour being very large, the Scissors could not embrace the whole; this obliged me to cut thro' it at three or four successive Strokes, which I gave without drawing them back, still pressing the Tumour between the Branches of the Scissors; the Edges of which would scarce divide it; being near as hard as the *Tendo Achillis*. The Piece I cut off was as big as an *Indian Chesnut*. This Operation could not be performed without great Fatigue to the Patient, who had frequent Inclinations to vomit, notwithstanding I avoided touching the Root of the Tongue with my Finger. The Wound bled considerably; but when the Patient had rested a few Moments, during which Time the Tumour disgorged itself a little, I clapped a Compress upon it dipped in the styptick Water and pressed out, which I introduced with my fore and middle Fingers, and kept it on for half a Quarter of an Hour. This only lessened
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the Hemorrhage, and put a Stop to its Violence: The Patient could no longer endure the Posture he was in, continually wanting to spit; besides, he fainted away, and we were obliged to lay him upon a Matrafs before the Fire, where he remained near two Hours, and spit three small Porringers of Blood and *Saliva*.

The Air did not yet pass through the Nose, though the Polypus was only on the left Side; but the Nostril was so very full, that the *Septum Narium* dividing the two Nostrils, was pressed against the Wing of the right Nostril, so that the Air could not pass.

I let the Patient repose five or six Days, that he might recover his Strength, which he soon did, because he had swallowed better than he had done for above a Year before.

During this Interval, that Part of the Polypus which remained in the Nostril, and was compressed before the former Operation, came partly out of the Nose to lodge itself more conveniently, possessing the same Place behind the *Uvula*, as the Portion I cut off had done before; so that I was obliged to begin the same Handy-work again. I operated at this Time more commodiously than I had done before; because the Tumour was not so large: Therefore, I cut it close to the *Processus Pterygoïdes*. An Hemorrhage succeeded this Operation, as it did the former; and was stopped by the same Method. The Patient grew so feeble that I suffered him to repose for a Week. He swallowed with Ease; but could not breathe through the Nose.

Having allowed him this Time, I thought it now proper to finish the Extraction of the Polypus, since nothing more appeared behind the *Uvula*.

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That Part of the *Polypus* within the Nose, being no longer so closely compressed, I had the Liberty of examining more narrowly into it, than I could before.

In order to find the Root, and the Part to which it was fixed ; I thrust an *Errhine* up the Nose, with which I laid hold of it to keep it firm ; then passing the Fore-finger of my Left-hand behind the *Uvula*, where I could feel the Remainder of the *Polypus*, I drew it a little with the *Errhine*, and discovered, by Means of my Finger, that it was not adhering either to the *Vomer*, or the Root of the Mouth, but to the lateral Part of the *Processus Pterygoides*, that is to say, to the posterior Part of the *Laminae Spongiosae Inferiores* ; and then I withdrew the *Errhine*. But to be further convinced, I took another Method : I passed a large Probe up the Nose, as far as I could, along the *Septum Narium*, between that and the *Polypus* ; then moving the Probe round the *Polypus* both above and below, I farther discovered, by this Means, that it was fixed to the *Lamina Spongiosa Inferior*. The Nostril being wide enough to admit of the Finger to reach the *Polypus*, I introduced an *Errhine* ; and the Fore-finger of my Left-hand at the Side of it, served to fix it in a solid Part of the *Polypus*. I held the Handle of the *Errhine* in the Palm of my Hand with the other Fingers, and passing a Pair of Scissars into the Nose with the Right-hand, by the Help of the Finger within the Nostril, I guided the Branches of the Scissars, so as to place one above the other below the *Polypus* ; by which Means I cut as near as I could to the *Lamina Spongiosa Inferior*. After the first Stroke with the Scissars, I perceived by drawing the *Errhine* to me, that the *Polypus* was less fixed, therefore I drew it again, and advancing

the Scissars, I still continued to cut, as near as I could, to the *Lamina Spongiosa*. By this Means, with three or four Strokes of the Scissars, I cut off the greater Part of it, to which the *Errhine* was fixed.

The Wound bled copiously, and the Blood descended into the Throat, which the Patient continually spitting away, convinced me that the Passage was free. It is natural to imagine, that I ought to have discovered this immediately, by his breathing freely thro' the Nose, rather than by the Passage of the Blood into the Throat; for this is the Sign Authors have delivered to us, to know when the Nostril is clear. But I learn from this Moment, that a Patient in such a Condition, thinks of nothing more than to spit up the Blood that offends him; and that the perpetual Habitude or Custom of opening the Mouth to respire, still subsists, as a first Principle in Nature.

I immediately thought of preventing the Descent of the Blood into the Throat, by means of the *Seton*, mentioned in the preceding Observation. To this End, I ordered a strong *Seton* about a Foot long to be tied about the Fore-finger of my Left-hand, to the Middle of which I had fastened two large Dossils, one dry and the other dipp'd into a styptick Water and squeezed out. I introduced a Pair of crooked *Forceps*, contrived on purpose, which I pressed almost to the *Vomer*; then quickly passing my Finger, armed with the *Seton*, behind the *Uvula*, towards the Bottom of the Nostril, I pushed the *Forceps* forward to meet the End of my Finger, and laying hold of the Knot in the *Seton*, I withdrew the *Forceps*, and brought that End of it through the Nose. Then I suffered the Patient to spit, and drawing the *Seton* further, I conducted the
first

first *Dossil*, with the Fore-finger of my Left-hand, which came through the Nose; and then I guided the other to the narrow Passage between the *Vomer* and the *Processus Pterygoides*; by which Means I stopped that Passage, and the Blood descended no more into the Throat. Now I had no great Difficulty to conquer the *Hemorrhage*; and did no more than to thrust two *Dossils* of Lint into the Nose, and the Bleeding ceased in a short Time. Without doubt, the Blood coagulated between the two *Dossils* produced this Effect.

The Moisture discharging itself into the Nose from different *Sinus's* that encompass it, wetted the Dressings by Degrees; so that I imagined they might be removed the next Day without Danger of an *Hemorrhage*. I extracted the two *Dossils*, and with them some Clods of Blood; then I drew the *Dossil* that stopped the Passage from the Nose into the Throat by the End of the *Seton*, that passed through the Nostril, which made room for a free Passage to the Air. I injected some Barley-water to wash it, which passed very currently.

As I was still sensible that a small Part of the *Polypus* remained, adhering to the *Membrana Pituitaria*, upon the *Lamina Spongiosa Inferior*, I thought it proper to bring it to Suppuration. For which purpose I fastened a *Dossil*, armed with something to consume it; and drawing the *Seton* back to the Mouth, the *Dossil* that passed up the Nose by the Nostril was drawn to the Place appointed for it.

The *Seton*, which I had lengthened, served me above three Weeks for the Introduction of proper Remedies. After this, I frequently made use of desiccative Injections; and the Patient, who had been two Months in the Hospital, went away perfectly

fectly cured. As I have heard nothing of him since, I have Reason to believe that his Distemper did not return.



O B S E R V. VIII.

Of a Fracture of the Lower Jaw.

LA R G E Contusions and violent Shocks of the whole Body, cause so great a Disorder and Confusion, that every Surgeon ought to defer giving a Prognostick, even when Wounds appear of small Consequence.

On the 19th of *May*, 1725, a Child of ten or twelve Years of Age was brought to *La Charité*, which had received a Kick upon the Chin by an Horse the Day before, that threw him down, with the Loss of his Senses.

He was immediately dressed of his Wounds, but Bleeding had been neglected; and, I was told, that his lower Jaw was fractured.

When I took off the Dressing, the Fracture seemed to be well reduced, and the Pieces of Bone, to all Appearance, in so exact a Situation, that I thought it improper to disorder them, to examine thoroughly into the Nature and Extent of the Fracture. Nothing more appeared than a slight Contusion, about an Inch from the *Symphysis* of the Chin, on the Left-side, attended with a small Wound, that was healed in three Days. I dressed the Patient again, and ordered him to be let Blood, although no Inflammation, no Swelling, or Fever appeared;

appeared ; prescribing a Regimen of Diet proper for his Case.

During the five first Days I thought every Thing secure, with Regard to this Accident ; but on the sixth he was seized with a slow Fever, attended with Pains in all his Limbs : Phlebotomy was performed five times in the Space of three Days, and the Blood was very thick. If these five Bleedings had been performed a few Days before the supervening Accidents, they might have been prevented.

On the twelfth Day, the Child seemed to be universally swelled, and died on the fifteenth, notwithstanding the Care we had taken.

Upon opening the Body, I found, at the Basis of the *Os Maxillare*, below the Cicatrice of the small Wound I mentioned before, an oblique Fracture, with a Piece of Bone almost separated, tho' it still remained in its proper Situation. I discovered another oblique Fracture at the Angle of the Jaw, on the same Side, extending from the *Processus Coronoides*, to the Neck of the *Condyl* of the Jaw-bone, which was displaced, without any Disorder in the Pieces of the fractured Bone.

At each Fracture I found a few Drops of *Pus*, between the fractured Pieces of the Bone : Besides, there were several small Abscesses in the Lungs. I found nothing in the Head which might be deemed the Consequence of this Blow.

To what Cause can we attribute those Pains the Child felt in his Limbs, his continual Fever, the Abscess in the Lungs and his Death ? Is it a Reflux of purulent Matter into the Blood ? Is it from a Concussion of the Brain that the Child lost his Senses the Moment he received the Blow ?

No-body doubts, but a general Stock of the *Genus Nervosum* may have an Influence upon the

Quality of the Fluids, and even the *Viscèra*; whether it be by giving a *Tremor* to the Fibres of the Vessels, which is a convulsive Motion, or by relaxing the Elasticity of the Fibres, which is a Sort of Palsy: Two Distempers widely different, yet both equally opposing the Freedom of Circulation.

I think the most certain Method to prevent fatal Consequences, in Cases of this Nature, is to bleed plentifully at first, in Proportion to the Strength of the Patient. By this Means, an Inflammation threatening the Wound is prevented, which might, otherwise, be attended by large Suppurations, and a Reflux of purulent Matter: This may likewise prevent those Disorders in the Parts, occasioned by a Shock of the Nervous System. As an Instance of the Truth of this Practice, I have since seen several considerable Fractures, which, by means of this Precaution have been cured without the least Accident.



O B S E R V. IX.

Of Cancerous Tumours.

WHEN the Extirpation of Cancerous Tumours upon the Lip is performed according to Art, we may answer for the Healing of the Wound; but it is imprudent in a Surgeon to assure the Patient that the Tumour will not return.

In the Month of *May*, 1727, a Person aged about Fifty Years was sent to the Hospital of *La Charité*, having a cancerous Tumour on the Middle of the Under-Lip, of the Bigness of a Nut, with which he had been afflicted for three Years before. The Tumour began by a small Pimple, upon which Vitriol had been applied to consume it; and was afterwards cut off level with the Skin, but always returned again. I enquired whether he had never had any Venereal Disorder, who confessed nothing that could give me the least Suspicion of that Distemper.

I judged it proper to extirpate the Tumour, by cutting into the sound Part; and when it was extirpated, I made use of the same *Suture* practised in the Operation for the Hare-Lip; by which Means the Patient was cured in six Days, and returned Home.

The 15th of *September*, in the same Year, he returned to *Paris*, at which Time, his former Disorder upon the Lip was not revived; but he had a cancerous Tumour under the Chin, of the Breadth of a Crown, and perfectly circular; in the midst of which was a small *Protuberance*, about the Bigness of half a Nut, which came slowly to Suppuration.

I judged it, however, to be of the same Nature with the former I had extirpated before, and hoped for the like Success, by using the same Method; and then proposed to correct an Indisposition that was not only local, but evidently residing in the Juices; since a Tumour, of the same Kind as the former, appeared on another Part.

When I had exhibited the Remedies common upon such Occasions, I extirpated this second Tumour, and found the *Os Maxillare* carious an Inch on each Side the *Symphysis* of the Jaw-bone.

Æthiops Mineral, and *Desiccative Ptisans*, prescribed by Mr. *Renaulme*, Physician to the Hospital, were employed in vain; the Wound never appeared in good Order; for, in a Fortnight's Time, the *Fungus* increased more than ever, and, in less than a Month, produced a Tumour, horrible both as to Figure and Scent.

The Patient gradually declined in his Strength, and died in about six Weeks, without being sensible of any Pain, unless during the Operation.



OBSERV. X.

Upon the same Subject.

AT the latter End of *September*, 1727, a Gentleman came to me, having an hard round Tumour, of the Bigness of a Crown, extending from the Chin toward the Throat, exactly in the Middle, firmly fixed, but attended with little Pain, tho' incommodious on Account of its Pressure on that Part; which was an Impediment to Deglutition; and thus he had been for the Space of a Month.

The Hardness of the Tumour resembling a *Phlegmon* in no Respect, gave me Reason to believe it cancerous; and the more, because in the Month of *May* preceding, a Surgeon of *Rockelle* had extirpated a small cancerous Tumour at the Corner of his Under-Lip.

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I advised him to be twice bled, and to apply emollient Cataplasms to the Part, thinking to see him in a few Days.

He consulted many others, whose Opinions were different ; they opposed Bleeding, and ordered him suppurative Cataplasms and Plaisters, promising him a Cure in a Week's Time. This was a Promise they could not perform ; for the Tumour burst at the lower Part, and formed a small Orifice, from whence a *Sanies* was abundantly discharged. Then they farther proposed to open the Tumour in its full Extent, to which the Patient refusing to consent, he returned to me again on the 25th of *November*.

I found the Tumour nearly of the same Magnitude ; and thrusting my Probe into the small Orifice, found it reached to the *Os Maxillare*, not under the Skin towards the Chin, but behind the Tumour, so that my Probe seemed to pass underneath the Tongue to the *Frænum*. The Patient complained, at the same Time that he felt an Uneasiness upon the whole external Part of the Head, without fixing upon any particular Place to which the Pain was confined.

The Conformity between this Tumour, and that I mentioned before, confirmed what I suspected ; and as the Patient came from a Sea-port Town, I judged that this Distemper might proceed from a scorbutick Humour, and be continued by it.

My Opinion was not to enlarge the Orifice, the natural Aperture being depending, and allowed a free Passage to the *Sanies*. I prescribed nothing more than the Application of the *Emplastrum Divinum* to the Tumour ; and to correct the ill Disposition of the Juices I suspected in the Blood, thought that Antiscorbutick Medicines might be of Service.

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The Surgeon to whom he had applied before, promised a second Time to cure him in a Fortnight, and my Advice was only prosecuted for a small Time.

The Distemper increased for two Months, and the Dimension of the Tumour was five or six Times larger than before, and declared itself to be cancerous, both by the Scent and Figure, which resembled a Colliflower. In short I was informed that the Patient died two Months after, in the same Manner as the Person mentioned in the former Observation.

Whilst we are upon cancerous Tumours on the Lip, give me Leave to make some Remarks in Favour of young Surgeons.

In the Number of cancerous Tumours upon the Lip that have been under my Care, I have seen several where the Colour of the internal Skin of the Lip has been changed, above an Inch round the Circumference of the Tumour, and the Redness of that Skin more vivid than in other Parts. This Alteration of Colour is a certain Proof, that the Glands underneath are affected, altho' the Obstruction does not appear by their Swelling. When this happens, it is requisite to take off that Part of the Lip; for want of doing which the Tumour would certainly return.

Suppose even that the whole Skin should appear in its natural Colour, we must not be contented with extirpating the Tumour only, but also take off a Part of that which is sound. As the Skin yields sufficiently to make Room for a *Suture*, it is better to sacrifice a small Part of the Lip on each Side the Tumour, than to leave any obstructed Glands behind, which may form another hereafter.

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When cancerous Ulcers affect the Bones, they ought to be deemed incurable ; nevertheless, when the Caries of the Bones is not very considerable, the Cure may be attempted by the actual Caustery.



OBSERV. XI.

Of a Cancerous Tumour in the Lip.

EVERY Surgeon knows, by daily Practice, that the Use of *Sutures* is only to unite those Parts that were divided before. When this Operation is performed upon cutaneous Muscles, the *Suture* alone is not sufficient, let it be of what Kind soever ; and will become useless, unless assisted by the dry *Suture*, which is absolutely necessary.

A Countryman came to *Paris* in the Month of *May*, 1724, to be cured of a Tumour upon the Under-Lip, by which he was so much disfigured, as to become an horrible Object.

In two or three Days Time he was sent to me, having been refused Admission into the Hospitals of *Hotel Dieu* and *La Charité*, his Case being looked upon as incurable.

He was afflicted with a cancerous Tumour, of the Bigness of a small Melon, which hung to the superior Part of the *Sternum*, covering the lower Part of the Face in such a manner, that he was obliged to raise it when he wanted to put any Nourishment into his Mouth. It is easy to conceive how much the Cheeks and the *Musculi Buccinatores* must be extended. The upper Part of the
Tumour

mour adhered to the Gums, along the Border of the Teeth, and to the Skin covering the Extremity of the *Cartilage*, that divides the two Nostrils. It possessed the whole Upper-Lip, and part of the Left-Cheek, below the *Processus Zygomaticus*. The Compassion I had for this poor Man's Condition, added to the Desire of informing myself whether his Case was incurable or not, made me take him into my own House to perform the Cure. When he was properly prepared for the Operation, I extirpated the Tumour in the following manner, in the Presence of Messieurs *Petit* and *Malaval*, both eminent Surgeons at *Paris*.

The Patient being conveniently situated, I introduced the Fore-Finger of my Left-Hand into the Mouth, under the Left-Cheek, on which Side the Tumour principally spread, and by pressing with my Thumb upon the Cheek, I discovered the Extent of the Tumour. Then, holding it firm between my Finger and Thumb, I cut, with a Pair of Scissars, from the Corner of the Lower-Lip, and round the Tumour, to the Place where it was fastened to the upper Gums, which was above the *Dens Caninus*. After I had done this, I took a *Bistoury*, and gradually dissected the Tumour, dividing it from the *Septum Narium* and the Gum, even beyond the Junction of the Lips on the Right-Side. Thus I extirpated the whole at once, which weighed near two Pounds.

To avoid Deformity as much as possible, and to prevent other Inconveniencies from an open Mouth, I made two *Sutures*, by which I fastened the two Corners of the Under-Lip to the Skin on each Side the Nose, a little below; by which Means the lower Lip covered the upper Teeth. As I had taken off a great Part of the Left-Cheek, I made two Stitches of the twisted *Suture*, to approach

proach the Lips that were divided one from the other, and covered the whole with Slips of strong Linen, moisten'd with Balsam of *Peru*, to prevent the ill Impression of the Air. In Consequence of the Loss of Substance which I was obliged to make, I found the Stitches not very secure, and perceived that, in a short time, the Thread would cut through the Skin where the Stitches had been made, unless seasonably prevented. To effect this, I took some strong Slips of Linen, of about half an Inch in Breadth, and five or six Inches long, spread with an *Agglutinative* Plaister; then ordering an Assistant-Surgeon to approach the Skin of the Wound, as near as he could towards one of the *Sutures*, I held the Skin fast by Means of the two Ends of the Slip of Plaister, the Middle of it covering the Part where the Stitches had been made before; and thus I acted by every *Suture* that had been made. By Virtue of this Precaution, not one Stitch broke, as it often happens in some Cases.

A Fortnight after the Operation, the Patient told my Pupils, that the Tumour had been extirpated before, whilst it was no bigger than a Cherry, which gave me Reason to apprehend a Return of the Distemper, tho' it never happened. The Skin, in those Points where I had made the Stitches, united in a short time; and nothing but the Gums of the upper Jaw healed slowly, and the whole was cicatrised in six Weeks: From whence I have Reason to believe, that only Part of the Tumour was taken off in the first Operation. Therefore I gave a Caution to young Surgeons in the preceding Observation, that when they met with a Case, wherein it was necessary to extirpate a cancerous Tumour, rather to take off a Part of the sound Flesh, than leave any Part of the cancerous Tumour

mour behind, which may chance to be impregnated with the vicious Humour that was the Origin of the Distemper.

I saw nothing of the Patient till five Years after, at which Time he was in perfect Health, without the least Sign of a Return of his Disease, and was not in the least disfigured, the under Lip covering the Teeth above.



O B S E R V. XII.

Of a Wound in the Throat made by a sharp Instrument.

RECENT Wounds, where a *Suture* is necessary, cannot be united, even after the *Suture*, without a perfect and continued Repose of the Part affected. In the Month of *February*, 1717, a Lad was brought to the Hospital, who had cut his own Throat transversely with a Razor: The Wound penetrated into the Mouth of the *Œsophagus*, and separated the *Epiglottis* from the *Glottis*, so that they adhered together only by two slender Filaments.

Had the Wound been but the twelfth Part of an Inch lower, the *Glottis* would have been entirely cut off, and the Right *Carotide Artery* divided, the Wound being about seven Inches long.

I thought it adviseable, for the present, to make as many *Sutures* as were necessary, leaving one Angle of the Wound open, that the Moisture proceeding from it might be freely discharged,
should

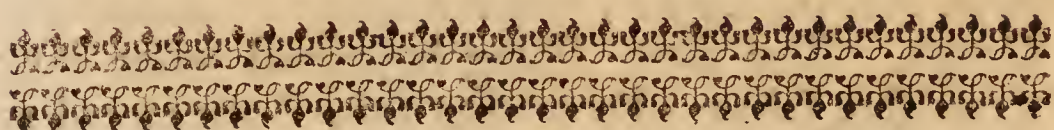
should any run into the Wound, covering the Stitches of the *Suture* with an *Agglutinative* Plaister. And that the Situation might concur (if possible) with the *Suture*, towards the Re-union of the Wound, I confined the Patient's Head with a Bandage, in such a manner, as to keep the Face downward, depriving him of the Liberty of raising it up.

I ought to have forbid his receiving any Nourishment ; but for want of this Precaution, they gave him a little Broth with a Spoon during my Absence. He swallowed some Part of it, but the *Epiglottis* being divided, and not closing exactly, a few Drops of the Liquid fell into the Wound, and some into the *Glottis* ; which excited a considerable Cough. The same Thing happened when they gave him Jellies. Perceiving this, I attempted to pour Broth into the *Œsophagus*, by Means of an Instrument resembling a Funnel, the End of which being pliant, was conducted by the Mouth into the *Œsophagus*, four Finger's Breadth below the Muscles of the *Pharinx* ; through this the Broth was poured without the Trouble of swallowing. A Part of it returned back, and gave the Patient a Fit of Coughing ; from whence I resolved to nourish him for the future by Broths injected into the Intestines, in the Nature of Clysters. This was done for several Days ; but an Inflammation supervening, which extended to the Lungs, the Patient died on the eleventh Day. The Inflammation might probably not have happened, if the Throat had not been irritated by the Cough.

I have passed over the Bleedings used in this Accident to prevent the Inflammation ; they were ordered in Proportion to the Strength of the Patient, but proved useless, as they did not retard the Progress of the Distemper.

REMARK.

The Shocks occasioned by the Cough, aggravated by the Nourishment he endeavoured to receive, or, perhaps, the flowing of the Broth into the Wound, might be Obstacles to the Re-union of the Wound. Therefore, in parallel Cases, I should always advise the Patient to be fed with strengthening Clysters, being fully convinced that the least Cough is capable of preventing the Union of the divided Lips of the Wound, and even to destroy it when begun.



OBSERV. XIII.

Of an Anthrax or Carbuncle upon the Neck ; communicated by Mr. Leaulté, sworn Surgeon at Paris.

THE Re-union or Cicatrization of Wounds and Ulcers, can only be procured by the Elongation of the Tubes of the Skin itself, which, by extending to the other Lip of the divided Part, forms a profound Cicatrice. Nature always observes the same Mechanism in uniting of Wounds, whether they happen in the soft or solid Parts of the Body.

For this Reason, too much of the Skin cannot be preserved in Operations or Incisions ; without this Attention, the Re-union is protracted, and performed with Difficulty, in all Cases where the Loss of Substance is considerable : Daily Experience teaches

teaches us besides, that this Loss may be re-established and perfectly restored ; tho', if I may be allowed the Expression, it seems annihilated and dead ; which I shall endeavour to prove by the subsequent Observation.

A Man, above eighty Years of Age, was seized with an ardent and continual Fever, preceded by Shiverings, accompanied with a violent Head-ach, Tremor at the Heart, Deliria, and other terrible Symptoms ; besides this, the Patient complained of a Pain in his Neck, occasioned by a Tumour that appeared inconsiderable at first, which he called a Boil.

On the fourth or fifth Day of his Distemper, the Physician having ordered his Patient to be several Times bled, with other proper Remedies, he prescribed Cataplasms to be applied to the Part affected.

I was called in, and found a Tumour in the middle Part of the left Side of the Neck, extending posteriorly to the *Spine* of the *Vertebrae*, spreading anteriorly along the *Trachea Arteria*, from the *Sternum* to the *Symphysis* of the Chin ; upwards, the Length of the external Surface of the Jaw, reaching beyond the Ear to the *Occiput* ; downwards, the Length of the *Clavicula*, *Acromion*, and the superior Part of the *Spine* of the *Scapula*. In the Midst of this Extent the Tumour appeared a little elevated, tho' excessive hard, having a black Spot in the Middle, bordered with a yellowish Red ; the whole being of the Bigness of the Palm of my Hand, resembling the Effect produced by a deep Burn without Blister, or a strong Contusion with Fire-Arms.

By these Symptoms, I discovered the Tumour to be an *Antrax* of the worst Kind ; and therefore applied emollient and suppurative Cataplasms, as

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hot

hot as the Patient could endure them. The next Day I found the Tumour a little mollified ; and feeling a Softness thro' the hard black central Spot, I made three Scarifications into it, quite thro' the Skin, of the Nature of those practised upon the Eschar, occasioned by the *Lapis Infernalis* ; and then dressed it with an oleaginous Digestive, melted and very hot, the Part being almost insensible.

These Scarifications procured so plentiful a Discharge of *Serum*, that we were obliged to change the Compresses every Hour.

Upon removing the Dressings the first Time, I found the Tumour considerably diminished, and the Eschar began to grow soft ; therefore I applied the same Remedy again very hot, covering the whole Tumour with a Cataplasm.

The third or fourth Day, the Eschar separated to the Extent of the Palm of my Hand, of the whole Thickness of the Skin, and of the *Panicula Adiposa*, which discovered the *Membrana Communis*. I pressed upon it with my Finger, and seemed to feel a moist and moveable Flesh underneath ; then I dressed it again with the same Ointment, filling the Cavity with Pledgets, still renewing the Cataplasm.

In the future Dressings, the putrified Substance at the Bottom appeared so very great, that, to stop its Progress, and to facilitate the Separation, I thought proper to touch it with the mercurial Solution, and to dress it with the same, blunted with common Water : This succeeded so perfectly well, that it not only procured a Separation of that Part of the *Membrana Communis* that was visible, but of its whole Extent, where it was fastened to the Basis of the Jaw, to the Border of the *Clavicula* to the *Acromion*, to the superior, and external Part of the *Scapula*, to the *Spine* of the *Vertebrae* of the Neck, and to the posterior and inferior Part of the *Occiput* ; in
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the End, all the Fat possessing the Length of the *Trachæa Arteria*, between the *Interstices* of the Muscles of the Jaw, those of the *Larinx*, Tongue, and Neck, entirely separated; all the Glands of these Parts, which are considerably numerous, fell off; all the Membranes covering the Muscles, either jointly or separately, became loose, so that they remained bare, of a beautiful red Colour, and were as distinct as it was possible to make them by the most accurate Dissection. The *Trachæa Arteria* plainly appeared, with all the Cartilages and Muscles joining them together near that Part of the Wound.

All these different Changes happened gradually, in a certain Space of Time, and by different Alterations in the *Pus*, both as to Quantity and Quality, till at length the Wound came to a laudable Digestion.

The Union of the Fibres of the *Membrana Communis*, with the Membranes covering the *Deltoides*, communicated its Infection to those Membranes, and produced a Suppuration; the Consequence whereof occasioned a Tumour upon the Middle of the Left-Arm, on the superior and external Part, extending a little below that Part of the Arm to which the Tendon of the *Deltoides* is fixed.

This Tumour impostsuined, and I found the *Deltoides* denudated when I came to open it, and the Bone bare near the Tendon; nevertheless, the whole was miraculously healed in a very short time, without Exfoliation.

This long Recital does not make me forget the principal Point I promised to demonstrate.

I have laid open to you a vast Number of Parts of a surprizing Extent, tho' I only mentioned a Wound of the Bigness of the Palm of my Hand, occasioned by the Separation of an Eschar, with-

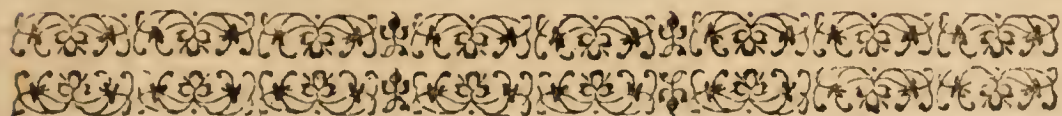
out mentioning a Word of the Skin which covers that Space.

It is easy to judge of the Condition it was in ; the Diffolution, or rather Putrefaction of the *Panícula Adiposa*, that sustained it, had left it as flaccid and thin as a Piece of wetted Parchment, and it appeared livid and pale about the Circumference of the Wound ; infomuch that the Loss of the whole was to be apprehended. I was under some Difficulty in what Manner to proceed, but not venturing to lay the whole Extent open, I resolved to make another Aperture, three Fingers Breadth, from the *Spine* of the *Vertebræ* of the Neck, following the Rectitude of the Fibres ; which Incision did not produce three Drops of Blood, altho' it was four or five Inches in length. By this Means, I made myself Room to dress the whole Space that was divided with Ease.

I continued the same Dressings, and as soon as I perceived that no more of those suppurated Membranes, Glands, &c. appeared, I clapped the Skin close to the Muscles, and secured it by a gentle Compression. I was now agreeably surprized to find that the Adhesion was not only begun, but that the Teguments grew thicker, and were very much altered in Colour, which was continued beyond those Parts where the Re-union was begun ; in short, the whole re-united, or rather was glued together, in a short Time ; nothing more remaining than the Wound, occasioned by the Separation of the Eschar, which was entirely healed in the Space of ten Weeks.

What a Work would it have been for Nature, if the whole Skin had been removed ? Whence I conclude, that too great Care cannot be taken in the Preservation of the Teguments in all Operations

tions and Incisions whatsoever; provided there are Vessels remaining to preserve a Communication between the Parts.



OBSERV. XIV.

Of an Antrax, or Carbuncle in the Nape of the Neck.

ALL the World is not acquainted with the Advantage of Chirurgical Observations. I am convinced of it for my own Part, and venture to say, that the preceding Observation, communicated to me by Mr. *Leaulté* in the beginning of the Year 1723. served to conduct me in the Management of a Case I am now going to relate.

In the Month of *November*, 1723, I was sent for to the *Hague*, in *Holland*, to visit a Gentleman eighty Years of Age, who had a considerable *Antrax* in the Nape of his Neck, extending about two Fingers Breadth, from that Part vulgarly called the Hole of the Neck, to the fourth *Vertebra*.

When I arrived, the Violence of the Inflammation was over, and an Aperture had been made in the middle of the Tumour; part of which, of the Bigness of a Crown, had been excised. The whole Circumference was in Streaks like Marble, being of a dusky Red in one Part, vivid in another, and in several almost black. The Wound had a very bad Appearance, and the more, because the *Panicula Adiposa* was in Eschars, and the Suppuration not yet confirmed.

I consulted with the Physicians and Surgeons that attended him before ; who proposed the Excision of that Part of the Skin which seem'd mortified : Nevertheless, after we had reasoned a little together upon the Subject, it was agreed to leave it entire, and wait for a Suppuration. I used proper Medicines to promote this, and, among others, a green Balsam, which suddenly procured a Separation of the Eschar, so that no more remained, in less than twelve Days. As the whole adipous Part had been altered, it wasted by the Suppuration, and then the Muscles appeared denuded and properly dissected.

The Teguments separated from the *Panacula Adiposa*, were two Fingers Breadth distant from the Muscles underneath, throughout the whole Circumference, and as thin as a Piece of Parchment.

At this very Time, when the Extirpation of the Skin was proposed, the preceding Observation had taught me to be frugal of the Teguments ; therefore raising the whole Circumference of them with my Spatula, I found them of a Vermilion Colour, as well as the neighbouring Muscles, and without any Eschar ; from whence I undertook to preserve them. These Gentlemen, being sensible that the Cure of the Wound would be sooner performed if the Teguments could unite with the Muscles, gave Way to my Opinion ; I therefore secured the Teguments close to the Muscles, pressing them gently with some soft Compresses, and a Bandage moderately tight. Nothing but the inferior Part of the Wound seemed to require Compresses. To prevent the *Pus* from lodging in the most depending Part, I put Compresses upon it, gradually increasing in Thickness, the thickest whereof was placed under that Part where the Skin was loose.

This Caution is useful in the Application of expulsive Compresses, provided they are applied only upon the void Space where the Compression is necessary ; but are injurious, when they do not press upon the Bottom of the *Sinus*.

At each succeeding Dressing I took care to discharge the Matter that was lodged between the Muscles and the Skin, by a gentle Compression of my Finger, that they might have Leisure to unite ; and I had the Satisfaction to find that the whole Circumference was re-united, the Skin was restored to its natural Colour, and the Remainder of the Wound healed in about a Month's Time.

During the Time of Cicatrization, two or three small Impostumations happened ; not in that Part where the Teguments had formed a Re-union of the Muscles, but beyond this ; I mean at some Points of the Circumference, where the Inflammation which had surrounded the Eschar was most considerable. There was no Symptom antecedent to this Suppuration but an Itching ; after which I perceived a slender Fluctuation, and gave a Discharge to a few Drops of *Pus*, and then it healed in a short Time.

I have omitted giving an Account of the Medicines agreed upon between the Physicians and myself, to calm the Fever raised in the Beginning, and to support the Strength of the Patient, both upon Account of the excessive Suppuration, and his Age.

The Patient recovered in two Months ; which could not have happened in less than four, if the whole Skin I have been speaking of, had been extirpated.



O B S E R V. XV.

Of a Contusion of the Pericranium.

TOO slender a Diet cannot be prescribed to wounded Persons, especially in those Wounds where the membranous Parts or tendinous *Aponeuroses* are concerned. It is to be wished that all Practitioners were truly sensible of this; it would lead them to prevent many unhappy Accidents attending these Wounds, even at such Times every Thing seems to go happily on. Diarrhæas and Fevers caused by bad Digestion, have often been the Death of a Patient, for want of a proper Regimen.

On the 9th of *May*, 1725, a Man aged about Thirty Years, was brought to the Hospital of *La Charité*, who had four Days before received a Contusion upon the Left Temple, whereby the Bone was discovered.

I found a *Sinus* an Inch long at one of the Angles of the Wound, which I dilated, and took off one of the Lips, under which my Probe passed. The Wound suppurated well, and proceeded successfully, till about a Fortnight after, the Patient having eat some cold Meat that was brought him, and drank in Proportion, he immediately felt an ardent Heat all over his Body. He was seized with a violent Fever at the same Time; his Pulse intermitted, the Figure of the Wound was changed, and the Lips grew flat and pale; which Accidents

cidents happening thus on a sudden, we were under a Necessity of bleeding him twelve Times in six Days. I forbear mentioning the Diet and Medicines prescribed by Dr. *Burette*, Physician of the Hospital. At length the Symptoms diminished, tho' the Wound was in the same Condition.

An *Erisipelatous* Tumour began to appear, which covered the whole Face, and continued a Week. When the *Erisipelas* was cured, the Wound was restored to its former Colour, and we had an insensible Exfoliation of the Bone, tho' it was two Months before it was completed ; then the Wound healed and cicatrized by Degrees.

We might imagine, that the Accidents attending this Case were the Consequence of an ill Disposition of the Blood, antecedent to the Wound ; but by reasoning, and judging according to the Appearances, it is most probable that these Symptoms were rather the Result of a bad Chyle, which had passed into the Blood.





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WOUNDS, FRACTURES, *and* CONTUSIONS *of the* CRA- NIUM.



THE Head may receive a Blow in two different Manners ; it may either be dashed against a solid immoveable Body, as happens upon falling ; or be struck by one, such as a Stick, Stone, &c. When the Stroke is given by the Head itself, a Concussion of the Brain is always the Consequence, either in a greater or lesser Degree, in Proportion to the Violence of the Shock ; because, the Brain being pressed forwards against the solid Body, is re-acted upon by that Body, and therefore undergoes two contrary Motions, at the same Instant of Time ; in which Case, the *Cranium* will either be fractured, or not.

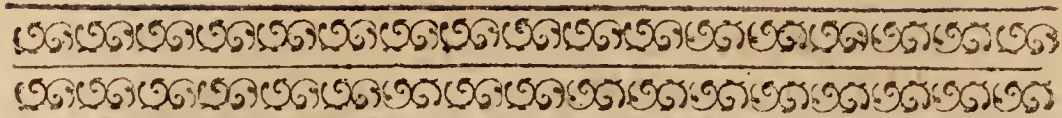
If the *Cranium* is not fractured, the whole Stress of the Blow is transmitted to the Brain, in proportion to the Violence of the Stroke. If the *Cranium* is fractured, and that Fracture is only a simple Fissure,

Fissure, the Concussion of the Brain will be nearly the same as when there is none.

If the Fracture extends very far, or the Bone is shattered into several Pieces, as the Violence of the Stroke is deadened thereby, the Concussion will be less in Proportion to the Extent of the Fracture.

In the second Case proposed, that is, when the Head receives a Blow by a solid Body, one of these two Accidents will happen; either the Force has Impulse sufficient to make the Person fall, or not, immediately upon the Blow given.

If the solid Body strikes with a Force sufficient to communicate its Motion to the Head, so as to make the Person fall, a Concussion of the Brain will be the inevitable Consequence of such a Shock, which will be greater, if the Bone remains entire, or is only attended with a slender Fissure; and, *vice versa*, when the Bone is shattered in Pieces. In both these Cases, the Loss of Sense, which is the Consequence of the Concussion, follows so close, that, to outward Appearance, the Patient seems to have fallen only by the Loss of his Senses: This Accident is soon over when the Concussion is slight; but when considerable, it does not so soon cease; because the Distemper becomes a real lethargick Disorder, being the absolute Consequence of a Pressure on the Brain, or of an Extravasation of Blood in some Part or other. In this Case, supposing the Stroke so violent, that the *Cranium* is fractured, penetrated, or contused, and the whole Complaint confined to the Place where the Blow was given. Of these three last Cases, the Contusion of the Bone is the worst, as being most difficult to discover, and, consequently, the *Pericranium*, the *Dura*, and *Pia Mater*, will be affected by this Damage done to the Bone; as will appear by the following Observations.



O B S E R V. XVI.

Of a Wound upon the Head; with a violent Concussion of the Brain.

WHEN the Head happens to strike against a solid Body, it is a Misfortune when the Skull has Strength sufficient to resist the Force impressed without Breaking: If it yields to the Blow, the Commotion or Concussion of the Brain is inconsiderable; but when it resists the whole Force given, the Violence of the Stroke will be transmitted to the Brain; and the Concussion resulting from thence proves most frequently mortal, notwithstanding the Assistance of Surgery, as will appear by the following Observation.

On the first of *August* 1725, a young Surgeon was brought to the Hospital, who had been thrown down by a Coach the Evening before, and received a Blow upon the posterior Part of the left *Parietal*: He seemed insensible for a Moment, but was capable of returning Home; and was seized that Night with a violent Pain in his Head, lost his Senses, and had some convulsive Motions. He had been bled on the Foot, which afforded no Relief to the Symptoms, and was in the same Condition when brought to the Hospital.

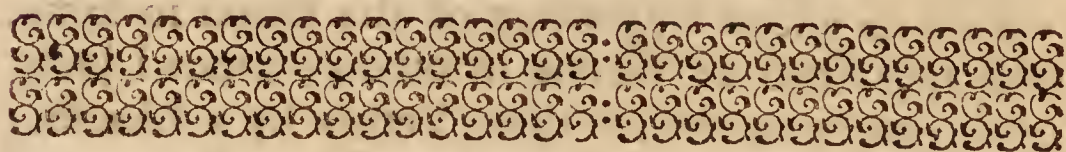
To discover whether the *Cranium* was affected, I immediately made a crucial Incision upon the Contusion, and found the *Pericranium* closely adhering to the Bone; then separated it, and found

no Fracture. The Wound I had made bled plentifully, which I suffered to bleed for some Time, and then dressed him with the Lint. The Patient recovered his Senses an Hour after, and enquired who sent him to the Hospital. I apprehended that the Loss of Blood, flowing from the Incision, was the Occasion of this sudden Change; which might, probably, proceed from the Communication of the Vessels of the *Dura Mater* with those of the *Pericranium* across the *Sutures*, this Bleeding being incapable to discharge the extravasated Blood. From hence I imagined, that the supervening Accidents were not the Consequence of an Extravasation, but rather of a Concussion of the Brain; by which the Elasticity of Part of the Vessels being either diminished, or destroyed, caused an entire Stagnation of the Blood in some, and restrained its Motion in others; hence I judged it proper to empty these Vessels by a Bleeding on the Arm and Foot the same Day. I removed the first Dressing the Day following, and discovered no Fracture, which might have escaped my Enquiry the Evening before, on Account of the Blood discharged from the Lips of the Wound, and therefore thought it improper to proceed any farther. The Patient was bled twice again, which was repeated the Day following. Observing no Diminution of the Fever on the fifth Day, and the Wound in a bad Condition, I called Messieurs *Guerin*, *Bernard*, and *Morand* into Consultation; and we concluded it necessary to apply the Trepan, at the Event of finding nothing; which was instantly done. The Trepan being applied to that Part of the Skull where the Stroke was received, we found no Extravasation upon the *Dura Mater*; but perceiving that Membrane considerably distended, we resolved to open it with a Lancet,

Lancet, from underneath which a little Serosity was discharged. The Symptoms still subsisted, and increased more and more, to the sixth Day, and on the eighth the Patient died convulsed.

R E M A R K.

When the *Pericranium* is not separated from the Bone, we may be almost certain that there is neither Fracture or Contusion, as I found it in this Case, and may dispense with the Operation of the Trepan; concluding, that the Symptoms attending the Accident are the Consequence of a Concussion of the Brain, from whence an Extravasation may happen in its Substance.



O B S E R V. XVII.

Of a Wound on the Head, attended with a violent Concussion of the Brain, and Fracture of the internal Table of the Parietal.

THE Coma or Lethargy attending Blows upon the Head, when the Head itself has been struck against an hard Body, may proceed from two different Causes, viz. from the Concussion of the Brain, without Extravasation of Blood; or from an Extravasation of Blood between the *Dura Mater* and the *Cranium*. When there is only a slight Concussion, the Lethargy resulting from it will yield to *Phlebotomy* often repeated, and other convenient Remedies; but if there be an Extravasation in any Part, the Lethargy will subsist till that

that is removed. Then, if it be only a slender Fracture or Fissure, or even when there is none in that Place, the Extravasation may happen in some other distant Part. In this Case, the Patient cannot be relieved, as will appear by the following Observation.

On the 10th of *April*, 1736, a Man of thirty Years of Age was brought to the Hospital, who had fallen from a Scaffold thirty Feet high; by which Fall he received a Wound of the Bigness of a Farthing, upon the superior Part of the left *Parietal*. He lost his Senses immediately, and remained in a Lethargy when brought to the Hospital.

The Wound consisted of a Part of the Scalp raised in a triangular Form; one Side whereof was directed towards the Forehead, and the Angle it subtended to the *Occiput*. In this Piece of Scalp were comprised the *Aponeurosis* of the *Frontal Muscles* and the *Pericranium*; therefore the Bone must be consequently discovered. In order to examine thoroughly into the Nature of the Wound, I thrust my Finger towards that Angle pointing to the *Occiput*; the Contusion being so large, that it was easily admitted to the posterior Part of the *Parietal*, between it and the *Pericranium*, which had a slender Adhesion, as it generally happens when the Bone is contused.

This obliged me to make a crucial Incision, whose Angles I cut off.

The Contusion of the Bone was very easily distinguished by its Colour, on that Part where the Blow was received, being brown in this Place, and white in others.

The Flux of Blood prevented me from discovering whether the Skull was fractur'd, or not: I made a bad Prognostick however, as the Lethargy remained;

remained ; and tho' there had been no other Symptom, this was sufficient to keep me in Suspence, since it afforded me Reason to believe, that there was an Extravasation of Blood in the Brain, or a considerable Concussion.

I dressed it like a simple Wound, and the Patient was bled four Times, between the Hours of nine in the Morning, and six in the Evening.

Next Day, when I came to remove the Dressings, the Patient had a Glimmering of Sense. But this was not of long Continuance, relapsing again into his Lethargy, attended with a Delirium.

Dr. *Renaulme*, Physician of the Hospital, ordered him to be bled again twice, once on the Arm, and once on the Foot ; which a little abated the Delirium, but it returned two Nights after : When I came to dress him the next Morning, I perceived a small Scratch upon the Bone ; but it was dubious, whether it was a Fracture or a Fissure : This, with other bad Symptoms attending the Patient, made me determine to trepan him directly ; being fully convinced, that it is better to try the Success of an Operation, not dangerous in itself, than to neglect it in a Case of Necessity. Therefore I performed the Operation the same Day, being the third after the Wound had been received, in Presence, and by the Approbation of several of the Fraternity.

I applied the Crown of the Trepan to the superior Part of the *Parietal*, where the Fissure appeared, and where the Colour of the Bone was changed. I had scarce penetrated through the internal Table, but the Blood began to flow out ; then I finished the Operation, by taking out the Piece, which had no Adhesion to the *Dura Mater*. Two Spoonfuls of Blood were discharged by this Operation, which seemed to have recently proceeded

ceeded from the Vessels. We perceived no Alteration or Tension in the *Dura Mater*; and by passing my Probe between that and the *Cranium*, found no Adhesion about the Circumference of the Hole; then I dressed the Patient methodically.

The Lethargy and Delirium subsisted notwithstanding the Operation; and the next Day some Blood discharged itself by the Orifice, but in less Quantity than the Evening before; he was therefore bled again. Three Days after the Operation, the Fever increased; and then the *Dura Mater* seemed to look blackish, and though we bled him again, he remained in the same Condition.

We had a fresh Consultation, wherein it was concluded to attempt nothing more; and the Patient died the seventh Day after the Operation.

I opened his Head; and when I had raised the Skull, found the *Dura Mater* entirely free, from the Orifice of the Trepan, to a slight Fracture of the internal Table, about an Inch from the anterior Part of the Opening. This Fracture was not a Fissure, but a Sort of Scale about the Bigness of my Nail, and of a triangular Form, two Sides whereof were loose, the other still adhering. This Fracture, in its Progress, crossed a Furrow, wherein a Branch of an Artery was lodged; and this Branch being lacerated, furnished that Blood which passed under the *Cranium*, and was discharged by the Orifice of the Trepan.

Between the *Dura* and *Pia Mater*, in the middle Cavity, at the Basis of the *Cranium*, opposite to the Fracture, we found several Clods of Blood as big as Almonds; and in this Part, the Vessels of the *Dura* and *Pia Mater* were so turgid, that the Membranes were of a purple Colour.

As this Extravasation was on the opposite Side to that where the Blow was received, may not this be termed a Counter-stroke? And suppose we had guessed it to be such, what Remedies could have been employed, since frequent Bleedings were fruitless?

R E M A R K S.

Did this Lethargy proceed from the Fracture? or was it the Effect of the Concussion? Had it proceeded from the Fracture, and the Extravasation of Blood by the Rupture of the Artery under the Skull, it would have ceased after the Operation of the Trepan, which it did not; and therefore was a Symptom proceeding from a Concussion of the Brain, or rather, from the Extravasation at the Basis of the *Cranium*.

Moreover, this Observation proves what I have advanced, *viz.* That when the Skull has Strength sufficient to resist the Force of a Blow given, without being fractur'd in Pieces; or, on the other Hand, if it be the Head that has given the Blow, the Violence of the Stroke will be transmitted to the Brain; whose Concussion will be so much the greater. The slight Fissure in the Bone, and the Fracture of the second Table, are no Proofs against what I have advanced; they only prove the Violence of the Blow, and were too inconsiderable to have deadened it.

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OBSERV. XVIII.

Of a Wound on the Head, with a Fracture of the Skull.

ON the 8th of *August*, 1725, I was sent for at Eleven o'Clock at Night to an old Man, who had fallen down a Stair-case seventeen Steps high ; he had lost his Senses, and was bathed in his own Blood.

Upon the first Examination, I found a large lacerated Wound, which formed a Flap as broad as the Palm of my Hand, at the Juncture of the *Temporal*, *Coronal*, and right *Parietal* Bones. As these Bones were not uncovered, and guessing by the Flap, that the Stroke was received obliquely, I restored it to its Place, and fastened it with three *Sutures*.

At the posterior and inferior Part of the right *Parietal*, I perceived another small Wound, where the Bone was bare ; and found a *Sinus* under the *Aponeurosis* of the *Occipital* Muscles, that extended to the Middle of the *Occipital* Bone, below the *Sutura Lambdoides*. I opened it, and found the whole Bone uncovered, and pursued the Incision to the *Musculi Extensores* of the Head, tracing the Progress of a Fissure, which beginning at the *Parietal*, extended beyond the Incision. The *Lambdoidal Suture* was so far ossified, as not to prevent the Continuation of the Fissure.

The Patient was sent to *La Charité*, where I trepanned him near the *Sutura Lambdoides*. The Junction of the *Dura Mater* with this *Suture* was destroyed, which occasioned a great Discharge of Blood from underneath the two Bones. I applied only one Crown of the Trepan, since, this being in the most dependant Part when the Patient lay down, it might answer the End of many; moreover, he had recovered his Senses.

The Wound went happily on till the thirteenth Day after it was received, the Patient having no Fever, no Pain, and his Mind composed. I was in Hopes of a Cure; but a fresh Accident hastened his Death. On the Thirteenth or Fourteenth at Night, he rose out of Bed, as he had done every Day before, to make use of a Close-stool by his Bedside; and unfortunately fell with his Head against the Wainscot, receiving a violent Blow, without making any Wound; or being deprived of his Senses; but had strong Convulsions the Remainder of the Night, and died the next Morning.

Upon opening the Head, I found the Fissure I had traced by Incision to a certain Point, was continued to the *Foramen* of the *Occipital* inclusively. The whole Portion of the *Dura Mater* that covers the *Cerebellum*, was of a Colour resembling that of *Membranes* in Suppuration; and this Suppuration might, in Time, have occasioned the same Symptoms as this Accident had produced.

On the other Side of the Head, I found a considerable Extravasation of Blood upon the whole left Hemisphere of the Brain, between the *Dura* and *Pia Mater*.



OBSERV. XIX.

*Of a large Contusion, with a Fracture of the Skull,
and Extravasation of Blood upon the Dura Mater.*

IN the Division of Fractures of the *Cranium*, I said, that where a contunding Instrument strikes the Head, the Commotion of the Brain is slender, if the *Cranium*, yielding to the Stroke, is shattered in Pieces: The Truth whereof is manifest by the two following Observations.

These two Observations prove likewise, in a most convincing Manner, that an Opening in the *Cranium* is not dangerous, in itself; and that the Fracture is not attended with fatal Accidents, but in Proportion, as the *Maninges* and Brain have suffered.

In the Year 1708, I went with my Father to visit a young Gentlewoman three Months after her Pregnancy, who had a Slate fell upon her Head from the Top of an House. She was struck to the Ground by the Violence of the Blow, lost her Senses that Instant, and continued lethargick. My Father was not called in till the Third Day. The Surgeon, who had dressed her till this Time, perceiving no Wound, looked upon a Concussion as the only Cause of this Symptom; and therefore contented himself with bleeding her several Times, making an Embrocation upon a Contusion that covered the right *Parietal*. Here we could perceive a Softness, or rather a Fluctuation resembling that in *Abscesses*.

My Father made a crucial Incision the whole Extent of this Part, which discharged a large Quantity of Blood, partly coagulated, and partly fluid. The *Pericranium* was entirely separated from the Bone, and remained fixed to the *Aponeurosis* of the Muscles; by which Means, we immediately discovered that the Bone was fractured into different Pieces, from between which issued Blood in Abundance. We applied a Crown of the Trepan to raise one Piece of Bone that was depressed, and being entirely loose, was taken off. Two or three Ounces of Blood more were discharged from under the *Cranium*, at the Circumference of the Fracture; and then we dressed the Patient methodically. Her Senses returned that Evening; which could proceed from no other Reason than this, that the Brain was no longer compressed, either by the Pieces of Bone, or the extravasated Blood. Frequent Bleedings, and a proper Regimen were not neglected; and the Wound went on so successfully, that the Patient recovered within the ordinary Time.

R E M A R K.

This Patient was thrown to the Ground by the Force of a Blow, which must consequently occasion a Concussion of the Brain; but the *Cranium* being shattered, and having consequently deadened the Force of the Stroke, the Concussion was slight: A Loss of Sense happened notwithstanding at the Instant the Blow was given, and continued to the Moment of the Operation; but that Symptom would have ceased, as you will see in the following Observation, if the Lethargy had not happened on a sudden, which was occasioned by the Pressure of
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the Pieces of Bone and extravasated Blood upon the *Dura Mater*.

Therefore, altho' there had been no Interval between the Loss of Sense, which is the Symptom of a slender Concussion, and the Lethargy or *Coma*, which properly belongs to an Extravasation in some Part or other, I believe they must be distinguished in the Imagination, tho' they are often confounded ; and I dare venture to affirm, that was it possible an Accident of this Nature could happen without the least Concussion, no sudden Loss of Sense would have ensued, and the Lethargy would have followed some Minutes after the Blow ; that is to say, when the *Dura Mater* and the Brain suffered a Compression.

When a Blow upon the Head is attended with considerable Symptoms, you cannot enquire too soon into the State of the *Cranium*, by making a large Incision upon that Part which has received the Blow ; and it is far more preferable to make a useless Incision, than to neglect it in a dubious Case.



O B S E R V. XX.

Of a Wound upon the Head, with a Fracture of the Cranium.

WOUNDS upon the Head so frequently happen, that too intense an Application cannot be made, in order to understand and distinguish the Symptoms of a Concussion of the

Brain from those of a fractured Skull ; and, tho' several Practitioners have furnished us with Observations to that End, I shall not hesitate to offer a few more, and the rather, because there are no two Distempers exactly resembling each other ; and that Multiplicity of Facts always serve to illustrate a Truth.

In the Month of *July* 1723, I was called in Consultation with Mr. *Terrier*, sworn Surgeon at *Paris*, and Surgeon-Major to his Majesty's Regiment, to see a young Man of fourteen or fifteen Years of Age, Servant to a Lady, who, in a Quarrel the Night before with his Comerades, received a Blow with a Stone upon the superior Part of the left *Parietal*: He lost his Senses the Instant he received the Stroke ; in which Condition he remained half a Quarter of an Hour at most, and from that Time had no bad Symptoms ; having a good Appetite, and wanted to go abroad : They had covered his Hair, tho' clotted with Blood, with a Rag dipped in vulnerary Water, looking upon the Wound as of little Consequence.

Mr. *Terrier*, causing the Patient's Head to be shaved, discovered a Hole almost round ; into which passing his Finger, through the lacerated and contused Teguments, he could distinguish that the Bone was shattered into several Pieces, and all of them depressed upon the *Dura Mater*, which made an Opening of an Inch and a half diameter.

We made an Incision into the Skin and *Pericranium*, as much to advance the Suppuration of the contused Flesh, as to discover the Extent of the Fracture. At length we extracted all the Pieces of Bone, several whereof were engaged under the sound Part, which being entirely removed, we found the *Dura Mater* not only contused but lacerated,

rated. As the Aperture was considerable, we had no Occasion to apply the Trepan ; and contented ourselves with removing some Asperities at the Circumference of the Fracture with the *Lenticular*. Only one Piece of Bone remained, which seemed to be loose, and this we did not extract, because it was locked into the sound Bone fixed to it, and upon a Level with it. I was intreated to continue my Visits to the Patient with Mr. *Terrier*, by whose Care the Wound proceeded successfully ; and, notwithstanding a proper Regimen of Diet was prescribed, the Nurse, moved with a false Compassion, exceeded the Orders she was directed to observe. At a Month's End a Fever seized the Patient, by being over-nourished, attended with a violent Vomiting. This was moderated by Bleedings, and a more severe Diet. During the Time the Wound was healing, the same Symptom happened a second Time ; at length, the Cicatrice being formed, and the Patient recovered, the Nurse, as well as the Patient's Appetite, being adverse to the Strictness of Diet prescribed, which was yet necessary, acted according to her own Fancy, and privately fed him with what she thought proper. The Patient did not long survive this Management, having a terrible Indigestion, accompanied with violent Vomitings. Every one knows, that all Vomitings impel the Blood to the Head, the dangerous Consequence whereof is much to be apprehended in those who have been trepaned. Whether these Vomitings were the Cause, or whether a Quantity of indigested Chyle mixing with the Blood occasioned the Fever, which was attended with a prodigious Pain in the Head, an Inflammation of the *Maninges* followed, as was evident by their vivid Colour, and a Swelling

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ing of the Face and Eyes ; and the Patient died in three Days, notwithstanding all our Attention.

R E M A R K.

The single Symptom attending this Fracture, does not exactly square with the Account given by Authors, relating to Symptoms in Fractures of the *Cranium*, and especially in those where the *Dura Mater* is concerned.

Must the Loss of Sense, which happened at the Moment the Blow was given, be looked upon as a Symptom of the Fracture ? No ; because it continued only Half-a-quarter of an Hour, the Fracture remaining in the same Condition for the Space of a whole Day, without being dressed. Is it a Symptom of the *Dura Mater*'s being lacerated ? It is not, for the same Reason. Therefore, this Symptom can only be attributed to a Concussion of the Brain ; the Loss of Sense continued for a small Space of Time, because the Concussion was inconsiderable, since the *Cranium* yielded to the Force of the Blow.

Had there been no Symptoms consequent to the Fracture, I should discover the Reason of it in the Description given of the Distemper. The Lethargick Disorder, which most Authors reckon a consecutive Symptom, never supervenes, but when either Blood or *Pus* presses upon the *Dura Mater* or Brain ; in this Case the Aperture was sufficient to prevent the Blood from stagnating. The Pieces of Bone depressed upon the *Dura Mater* did not long remain in the same Situation, and the Compression was gentle, since there was no Weight upon the Pieces of Bone depressed. Hence we may conclude, that the Loss of Sense happening at the very Instant of the Blow received upon the Head,

Head, is a Symptom of the Concussion of the Brain, and not of a fractured Skull; that it remains a longer or a shorter Time, in proportion to the Violence of the Concussion; and happens only upon strong Agitations, unattended with a Wound of the Teguments, as appears by the preceding Observation, that the *Coma* or Lethargy (the Consequence of an Extravasation) so closely follows that of the Concussion, as to make us confound one with the other.

The Laceration of the *Dura Mater* was attended with no Accident; therefore, let us enquire farther, that we may discover the Reason. We are taught by Experience, that a Puncture in membranous Parts, or tendinous *Aponeurosis*, is exceeding dangerous; whilst a large Incision in the same Part shall not be attended with any bad Consequence: The Reason is, that in a small Wound, occasioned by a simple Puncture, the nutritious Juice of the Part stagnates, grows acrid, and, in Time, irritates the Edges of a small Wound; but when it is larger, the nutritious Juice cannot stagnate: and moreover, the Serosity proceeding from a large Wound, drains the Vessels of the Part, and may prevent an Inflammation. In this Case, the Laceration of the *Dura Mater* extended almost as far as the Fracture; and the Pieces of Bone occasioning it being removed, the consequent Suppuration re-established the Part in a few Days; for this Reason the Symptoms were inconsiderable, notwithstanding the Extent of the Wound. Eight copious Bleedings, in the Space of three Days, seconded by a regular Diet, could not a little contribute towards preventing an Inflammation. From whence we may conclude, that in the Operation of the Trepan, wherein we are obliged to perforate the *Dura Mater*, in order to discharge
what

what is underneath, it becomes absolutely requisite to make a larger Aperture than what Authors have advised upon such Occasions, provided that Care be taken not to open any considerable Vessel.

This Observation farther instructs us, that when the Bones are shattered, it is not always necessary to remove every fractured Splinter which seems separated from another, provided it be level with the neighbouring Bone, and no Scale or coagulated Blood underneath; and besides, if the Orifice is sufficient, the Piece of Bone divided from the rest, unites to the adjoining by a Sort of *Callus*, such as remained in this Case, the Superficies whereof exfoliated insensibly.

The Vomitings which supervened towards the latter End of the preceding Case, and the Death of the Patient, occasioned by them, sufficiently proves that we cannot be too cautious in observing a strict Regimen, which ought to be continued even after the Cure.



OBSERV. XXI and XXII.

*Of a Wound on the Head and Face, communicated by
Mr. Leaulté, sworn Surgeon at Paris.*

ALL the Instruction transmitted to us by ancient Authors, with regard to the Manner of treating Wounds, have strictly defended the Re-union of such as are contused; those with Loss of Substance, and others attended with a Fracture
or

or Contusion of the Bone ; but daily Experience, added to the Knowledge of Animal Œconomy, have freed us from those Rules ; or, at least, informed us, that they are not without Exception.

In the Year 1709, at the Battle of *Malplaquet*, two of the Life-Guard in my Company were wounded ; the one received a Musquet-shot in the Face, the Ball grazing on the Border of the Orbit, towards the End of the Left Eye-brow, lacerating the upper Eye-lid to the great *Canthus* ; and, in its Progress, crushed the Root of the Bone of the Nose in Pieces, lacerated the inferior Lid of the Right Eye, joining to the great *Canthus*, and then flaunted to the inferior Part of the Orbit.

The other received a Cut with a Sabre upon the superior and middle Part of the *Occiput*, making a Wound in the Teguments of the Bigness of half a Crown, taking off about the Extent of a Shilling from the first Table of the *Occipital* Bone, and from the internal Table the Bigness of a Silver Groat, without offending the *Dura Mater*, only leaving it uncovered.

Both these Men were wounded in the Field of Battle, and I only saw them the next Day, when I visited others that were sent to the Hospital of *Quesnoy*.

Upon removing the first Patient's Dressing, I found he had been managed according to the Rules of the Ancients ; the Surgeon had stuffed the whole Extent of the Wound, as well that of the lacerated Eye-lids, as that belonging to the Bones of the Nose, and the Nose itself was thrown upon the Lip, all very much swelled, and forming an horrible Appearance.

This hideous Aspect made me more seriously reflect upon the consequent Deformity of the Face, than of the Wound at this Time ; therefore I

moistened all the Doffils lodged in it with warm Wine, to remove them more easily ; washing it well, and approaching the Lips as much as the Swelling would admit. Then I applied two thin Pledgets, dipp'd in a proper Liquor, upon the Eye-lids, and rais'd the Bones of the Nose with the End of my Spatula ; extracting some Splinters that were loose, and supported the Remainder in its natural Situation, by Means of two Quills armed with Linen ; covering the whole with a Pledget dipped in the same Liquor ; and over all, slight Compresses, steeped in proper Medicines, to assuage the Swelling, and to prevent a Mortification. I secured these Applications by a proper Bandage, suitable to the Parts, and to the Intention of preserving them in their natural Position, prescribing necessary Evacuations, and a convenient Regimen.

Then I dressed the other Patient, who had received a Wound upon the *Occipital*, which I found likewise stuffed with Lint ; the fleshy Part of the Teguments being very much swelled, and pressed downward, with the loose Part of the Bone turned back ; which, however, adhered the length of half an Inch to the Skin and *Pericranium*. The *Dura Mater* being in a sound Condition, I covered it again with a thin Pledget.

Having proceeded so far, I thought proper to attempt the Re-union of the Teguments, and the Bone, as I had done in his Comerade's Case ; but the Swelling of the Parts prevented my Intention, therefore I only supported them by gradual Compresses, which pressed them together : Then I covered the rest of the Wound slightly, with Pledgets and Compresses dipped in proper Remedies, contriving a convenient Bandage, both to support the Teguments, and approach their Lips ; prescribing afterwards

afterwards necessary Evacuations, and a suitable Regimen.

I continued to dress him in the same manner for several Days, with a View of uniting the Wound; to which the Reduction of the Swelling much contributed.

Many of the Fraternity were Witnesses to these Facts. The late Mr. *Le Dran*, being at *Quesnoy* with the *Mareschal de Villiers*, came to visit my Patients, who apprehended that I should be obliged to separate the Bone from the Teguments intirely, in the latter Case; but, upon second Thoughts, we concluded, that I had always Time enough to perform this Operation, if my former Intentions did not succeed; and therefore we agreed to continue the same manner of Dressing: which afforded me the Satisfaction, in a few Days, of approximating the Pieces, and securing them so well to the neighbouring Parts, that they perfectly reunited, forming a Cicatrice in the Space of twenty-five Days, without the least Accident.

I treated the Wound upon the Face of my other Patient in the same Manner; by which Means it proceeded so happily, that nothing more remained than the Union of the Cartilage of the upper left Eye-lid next the great *Canthus*. But though the Compression and Bandage had compleatly succeeded on the Inferior right Eye-lid, they were not attended with the same Success on this Part; I resolved therefore to make two Sutures, one at the Border of the Eye-lid to the Root of the Nose, and another at the superior Part of the same Eye-lid, to the Skin at the Border of the Orbit, next to the Ridge of the Eye-brow. By this Method I joined the Cartilage, fixing it in such a Situation, that it might unite with the other Parts, which succeeded to Admiration. The Wound of the Nose proceeded

ceeded with equal Success, some Splinters separating, which contributed to a perfect Re-union and Cicatrization of the whole.

The former Patient dying of an intermitting Fever, the Campaign following, by the Administration of a bad Medicine, I opened his Body ; and recollecting the Nature of the Wound, of which I had cured him the Year before, my Curiosity was raised to examine in what Manner the Re-union I have mentioned was performed. I raised the Teguments of the *Occiput*, and discovered, in that Place where the Bone had been cut with the Sabre, a Kind of Solder round the Circumference of it, raised a little in the Middle, and imperceptibly declining on both Sides ; the Superficies of the Bone forming only three Quarters of a Circle, the lower Part being in its natural State. Then I opened the *Cranium*, and found the internal Surface of the Bone, which had been cut, perfectly smooth, without the like Elevation that appeared on the external, and the *Dura Mater* unaltered.



O B S E R V. XXIII.

Of a Wound on the Head, and accidental Trepan.

THE 18th of November, 1725, a Journeyman Farrier, aged thirty-five Years, came to *La Charité*, for my Advice, who had received a Kick by an Horse a Fortnight before, on the superior Part of the left Side the *Coronal*, two Fingers Breadth from the *Sutura Sagittalis*.

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Thro' the small Wound that was made, I discovered a Depression of the Bone, with Loss of Substance, about half the Extent of my Nail. I enquired of him what had happened the Instant he received the Blow, who informed me, that he lost his Senses for a Moment, but soon recovered them, and had been very healthy ever since, was only once bled, dressed in a gentle Manner, and had worked at his Trade as usual.

I immediately probed the Wound, and could not feel the Piece of Bone that was deficient in the *Coronal*; but ordered it to be dressed according to Art, persuading the Patient to lie in the Hospital, that we might examine more particularly into his Case; but he refused this Offer. I probed him again the next Day, and then discovered the Piece of Bone that was separated from the *Cranium*, which I could move with the End of my Probe, upon the *Dura Mater*, the Pulsation whereof was perceivable thro' the Wound.

Finding no Possibility of extracting this loose Piece of Bone, I thought proper to enlarge the Wound of the Teguments, in order to apply the Crown of a Trepan. The Patient enduring no Pain, and being ignorant of the Consequence of his Case, refused to submit to my Advice, and returned no more to the Hospital.

About two Months after he appeared again, perfectly recover'd, and pleased that he had not undergone the Operation.

I examined the Cicatrice, which was deep and firm; he had been dressed the whole Time only in a plain Manner, and Nature performed the rest.

R E M A R K.

This Observation may serve to prove what I advanced in the preceding.

First, That in Wounds on the Head, the Symptoms called *Primitive* by antient Authors, because they instantly appear when the Wound is made, are in no Degree the Symptoms or Signs of a fractured Skull, since they cease tho' the Fracture subsists ; but are always the Symptoms of a Concussion of the Brain.

Secondly, That when the Wound of the *Cranium* and Teguments is of an Extent sufficient for a Discharge of the Blood contained between the *Cranium* and *Dura Mater*, no Lethargy ought to supervene, which is the common Symptom of an Extravasation.

Thirdly, What ought we to judge, as this Fracture was occasioned by the Kick of an Horse, of the Concussion of the Brain being so very slight? Nothing more than what we have seen in the preceding Observations ; which is, that when the Bone yields and is fractured, the Force of the Blow is transmitted to the Brain in a less Degree, and the Concussion will be consequently less ; whereas, when the Bone does not yield to the Stroke, and remains entire, the Shock is communicated to the *Dura Mater* and the Brain, occasioning a greater or lesser Concussion, in proportion to the Force impressed.

Hence we may justly conclude, that in violent Blows upon the Head, if the Symptoms of a Concussion are gentle, let us not hesitate to pronounce the Bone either fractured or not.



OBSERV. XXIV.

Of a Wound on the Head by a Pistol Shot, attended with Loss of Substance. Communicated by Mr. Baileron, sworn Surgeon at Beziers.

ON the 17th of *February*, 1721. I went with my Colleague, Mr. *Amillac*, to visit a Woman about twenty-six Years of Age, whom I found sitting upon her Bed-side, reasoning as if she was in perfect Health, and relating to the People present in what Manner, and by whom she had been wounded. She had received a Wound by a Pistol clapped close to her Head; but could not satisfy us whether the Ball entered above or below. There were two Openings made by one Shot; neither could I discover, upon the strictest Examination, the Place of the Ball's Entrance from that of its Exit, tho' the latter ought to have been the largest. The Reason that occurred to me was, that a Part of the extraneous Body having remained within the *Cranium*, the other Part was not sufficiently large to make me distinguish one from the other, which is common in Gun-shot Wounds.

To give you a just Idea of this Case, the Wound was situated at the inferior Part of the right *Parietal*, between the temporal Bone and the right Ear.

I removed the Flesh, that formed a Sort of Arch, with a Pair of Scissars, and then had Room to introduce my Finger into the Wound. I dressed it

in the usual Manner, finding the Skull ready trepanned by the Ball, which had taken off a Piece of the Bone. This was an *Apocepharnismus* made by a Fire-Arm. We placed Linen Sindons upon the *Dura Mater*, and wet Lint, rather to humect or moisten it, than to restrain the Pulsation, which was almost imperceptible. The next Day we required only an Elevatory to raise a Depression on each Side the Border of the Hole where the Bone was deficient, and then smoothened the Edges with the *Lenticular*. This Operation was performed without any Accident; and had we not discovered the Nature of the Wound, we might have suspected the Brain to be concerned. She remained in this Condition to the 26th, but what a sudden Change happened then! The Eschars of the *Dura Mater* and cortical Substance of the Brain beginning to separate the same Day, we were obliged to excide at three different Times, from the 26th of this Month, to the 3d of *March* following, the Bigness of a large Nut at each Time; since it raised the Sindons, notwithstanding the Pressure of the Lint upon them, to resist the excessive Motion of the Brain that encreased daily. A Grinding of the Teeth, Delirium, and Fever, preceded by Shiverings, constantly attended each Dressing till the 9th of *March*, after which a Calm succeeded for six or seven Days.

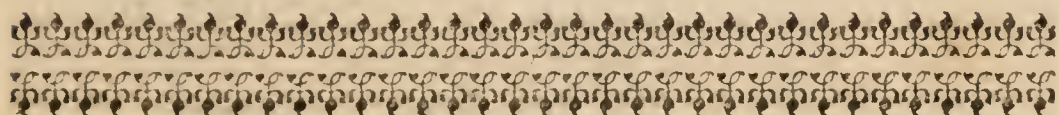
At the Expiration of this Term, the same Symptoms returned, with a copious Suppuration, proceeding from the very Substance of the Brain, which washed off five Shot, and three Slugs that were lodged in this fungous Excrecence. The Quantity of *Pus* decreased when these extraneous Bodies were discharged, whose Weight had occasioned an Inflammation before.

I confess, with Confusion, that I prognosticated the Death of the Patient, tho' she had dwindled on in this Manner the Space of thirty-five Days.

The Delirium and Lethargy ceased on a sudden, after this extraordinary Suppuration, and the Patient perfectly recovered her Senses; there was a sensible Regeneration of the *Dura Mater*, and the Bones, and the Wound was healed on the 15th of *May* following.

The Patient has continued in a good State of Health ever since, excepting that she was sometimes troubled with Vapours, and a slight Heaviness, which have entirely left her these two Years past.

Would it not have been more proper to have removed the Arch in the Bone between the two Orifices with the Trepan? Had this been done, we should certainly have had a free Separation of the Eschars, and the Dressings would have been facilitated.



O B S E R V. XXV.

Of a Wound on the Cranium made by a Sword.

ABSCESSSES formed in the Brain are not attended with the same Symptoms as those in other Parts of the Body; consequently the Symptoms of Suppuration resulting from one, cannot be the same with those of the other. In the first Place, the Tumours are under the *Cranium*, and therefore not the Objects of our Senses. Secondly, they are accompanied with little Pain, be-

cause the Brain is almost insensible ; and this Pain is so equivocal, that we can make no exact Indication of what we seek to discover. Thirdly, the Heat, if the Patient feels it over his whole Head, is still an uncertain Sign, since it may be the Consequence of a Fever. Fourthly, the Tension does not appear, either to us or our Patient, by Reason of the Softness of the Brain. Fifthly, the Pulsation of the Arteries is so often felt in the Head, when there is no Collection of *Pus*, that this Pulsation is no Mark of an approaching Suppuration, but only of a Tension of the *Meninges*. How then shall we discover when an Abscess is forming in the Substance of the Brain ? Nothing but repeated Observations can instruct us in this Case ; the preceding and following may be of some Service towards it.

On the 12th of *February*, 1730, a Soldier of the Guards fighting with his Comrade, received a Stroke with a Sword directly under the Left Ear. He was sent to *Hotel Dieu*, where the young Surgeon, who attended him, perceiving only a small Wound, which seemed superficial, dressed him with dry Lint, as no Symptom appeared. The Patient was twice bled notwithstanding, and his Wound being healed the third Day, he went from the Hospital.

On the 21st of the same Month, the ninth from the Wound, he was brought to *La Charité*, and put into the Fever Ward. The Person was *Comatose*, with a central Pulse inconceivably languid ; his Senses were clear ; but it was with Difficulty he was prevailed upon to answer any Question that was asked him, complaining only of a slight Pain in that Part where he had received the Stroke ; had some convulsive Motions in his Face, with a Grinding of the Teeth.

He

He was bled on the Foot next Morning, by order of the Physician ; and the Symptoms increafing the third Day, he blister'd him between the Shoulders. The fourth he feemed fomewhat better ; for which Reason they prefcribed him the vulnerary Ptifan only. The fifth I was defired to fee the Patient, when I found a fmall Tumour above the Ear. I prefcribed fuppurative Cataplafms, and ordered him to be removed to the Ward of the Wounded ; which was not done till the next Morning, being the fixth Day from his Entrance into the Hofpital, and the fifteenth from the time he received the Wound. I had a Recital, at the fame Time, of what I have juft mentioned.

The Tumour increafed a little in the Night, and the Symptoms abated ; perhaps, becaufe the *Pus* was formed. Having feen the Patient only the Evening before, I could refolve upon nothing elfe than to open it where I felt a Fluctuation.

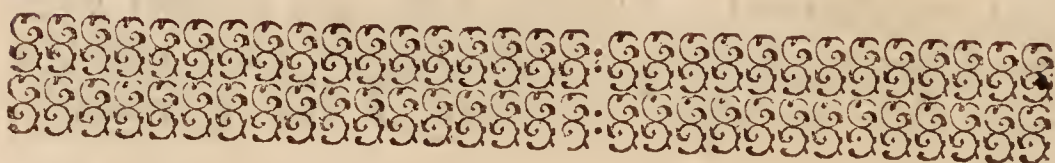
This was no fooner done, but five or fix Spoonfuls of *Pus* difcharged itfelf from under the *Cranium*, through a fmall Hole in the Bone. I introduced a Probe into this Hole, which penetrated four Fingers Breadth, without preffing it forwards. I propofed to apply the Trepan next Morning, confidering the Smallnefs of the Aperture in the *Cranium*, which would not allow me Room to introduce proper Remedies into the Cavity ; but the Patient died that Night.

I opened the Head, and found that the Sword had pierced the *Parietal* Bone, the *Dura* and *Pia Mater*, and had penetrated even into the middle *Lobe* of the Brain, where I found an empty Space, capable of containing three Ounces of Liquid. The Colour of the Brain round

the Circumference of this Space was very little altered.

R E M A R K S.

This Observation, with some of the foregoing, evidently prove, that Wounds or Fractures of the Skull are very dangerous, when there is only a simple Fissure without a Depression, or the Opening so small, as not to afford a Discharge of the Blood or *Pus* lodged under the *Cranium*; from whence we may readily conclude, that we cannot apply the Trepan too often; since it has been proved, by former Observations, that large Fractures, where we are obliged to extract several Pieces of the *Cranium*, are generally less dangerous than those that appear more slight.



O B S E R V. XXVI.

Of a Wound on the Head, without a Fracture.

AUTHORS have hitherto mentioned the Trepan, as useful only in raising depressed Pieces of the *Cranium*, or to make room for the Discharge of some Liquid, such as Blood or *Pus* lodged under the Skull. The Trepan is no less necessary in Contusions of the Bone; not because the Bone is contused, but to prevent the Damage that might attend the *Dura* and *Pia Mater*; which is almost unavoidable.

On the 16th of *May*, 1724, a Man was brought to *La Charité*, who had received a Blow with a Stick

Stick upon the left Side of the superior Part of the *Coronal*, about three Weeks before.

I found an Hole in the Teguments, large enough to admit my little Finger, into which the *Sisters of the Parish Charity*, who had dressed him till this Time, had forced Dossils of Lint. I threw them out, and found the *Pericranium* separated from the Skull, above the Bigness of a Crown; and the Circumference of the Lips of the Wound raised perpendicularly, so that I could pass my Finger underneath. The Wound was very dry, the Patient in a violent Fever, but without Loss of Sense, having no other Symptoms than a Kind of *Stupor*, appearing a little heavy and dull; therefore his present Condition rendered him incapable of acquainting me thoroughly with what happened when he received the Blow, or whether the *Sisters of the Charity* went to dress him, or he walked to them any Part of the Time.

I dilated the Wound to discover the Bone, and found no Fracture; hence I made a bad Prognostick of his Case, and of the Inefficacy of an Operation that seemed absolutely necessary. By the Siccity of the Wound, and the Patient's present Condition, it was evident, there had been a Reflux of purulent Matter, and, consequently, the Trepan would be useless. He died the next Day.

I opened him, and found the *Pericranium* separated from the Bone, the whole Extent of that Side the *Coronal*. Then I raised the *Cranium*, and found that the *Dura Mater* was not only separated from it, but putrified; which Putrefaction extended, even almost throughout the *Falx*, the whole being infiltrated with a purulent *Sanies*, the Consequence of a Putrefaction of the Membranes. I found a large Number of white Spots upon the Liver, each of which was a small Abscess.

In

In most of these Abscesses, the *Pus* seemed rather to be infiltrated than deposited.

R E M A R K S.

How could the *Pericranium* be thus separated from the Bone, at the Circumference of the wounded Part? Must it not be from a general *Tremor* affecting the whole Solidity of the *Cranium*, like that occasioned by a Clapper against the Side of a Bell, which is communicated throughout the whole?

If it be from the Consequence of such a *Tremor*, that Numbers of small Fibres uniting the *Pericranium* to the Skull are divided; by Parity of Reason, several of those slender Fibres, uniting the *Dura Mater* to the *Cranium*, may be divided also; from whence an *Erisipelas* arose, which occasioned its Suppuration and Putrefaction; (for the Suppuration of Membranes is nothing but a Putrefaction.)

If, in a contused Wound, where the *Cranium* is discovered, we find that the *Pericranium* adheres loosely to it, or is intirely separated from it, this is a certain Sign that the *Cranium* has suffered, although it is not fractured; and if that has suffered, we may justly conclude that the *Dura Mater* has suffered also. Hence, whensoever we find, by the Incision made, that the *Pericranium* has lost its Adhesion with the *Cranium*, the Operation of the Trepan ought not to be deferred. I am sensible, that in parallel Cases, no Extravasation of Blood, no Collection of *Pus*, has appeared under the *Cranium*; but nevertheless, the Operation being performed in Time, might have been the only Method of preserving the Patient, when it is not absolutely impossible; since, through this Aperture made by the Trepan, we have the Conveniency of
 2 apply-

applying proper Remedies to the *Dura Mater*, to prevent its Putrefaction.

Was not the *Stupor* a Symptom proper to the *Dura Mater*? I have always found the same in those Patients, where a Putrefaction of it has appeared upon dissecting the Head, whether the *Cranium* was fractured or not.



OBSERV. XXVII.

Of a Wound on the Coronal, without Fracture, but with a Contusion of the Bone.

IN the Month of *October*, 1726, a Journeyman Watch-maker was sent to *La Charité*, who had received a Stroke about a Week before with a Sword, upon the middle and anterior Part of the *Coronal*, a little on the Left Side. I inquired of him what Symptoms he had upon receiving the Stroke; who told me, that he did not lose his Senses that Instant, but lost Abundance of Blood; that since that Time he had felt no bad Symptom, and was sensible of no Pain, but upon the Part where he had received the Stroke; and had been dressed by a Surgeon, to whom he was a Stranger.

I found a transverse Wound, an Inch in length, and very narrow, seemingly a simple one; from whence I extracted five or six small Dossils, which had been pressed in to keep the Lips of the Wound asunder; the Surgeon's Design being, as the Patient informed me, to keep it open, and wait for an Exfoliation of the Bone that was cut. Having removed

removed the Dossils, I perceived an *Ecope* in the Bone that did not penetrate to the *Diploe*.

Finding the Patient in so favourable a Condition, I attributed the Dryness of the Wound to the improper Method of Dressing which had been used ; a Practice capable of producing an Infinity of Accidents ; and ordered it to be dressed like a simple Wound. The Patient had no Fever, and, what is astonishing, felt so little Pain in the Wound, that he walked about in the Hall, and, in two Days, it suppurated without any Tumefaction on the Circumference.

I was amazed, on the 9th, which was the 17th from the Wound's being received, to hear that the Patient was seized in the Night with a violent Fever and *Delirium*. I learn'd, at the same Time, that he had been visited by a Relation the Evening before, who informed him of a Proposition to send him to the Plantations by a *Lettre de Cachet*. When I came to dress the Wound, it appeared dry, and the Circumference tumefied. The Condition in which he had been, from the Beginning of the Wound, to this Time, induced me to believe that the News reported to him, occasioned this sudden Alteration ; but I was surpris'd to find those Symptoms subsist, and destroy the Patient in three Days, notwithstanding the Bleedings, which were judg'd necessary, and other Remedies agreeable to his Case. The Evening before his Death, the Eye-lid on that Side was tumefied.

Upon opening the Body, I discovered the true Cause of his Death, finding it to proceed only from a Contusion of the Bone.

The Stroke, which was inciding with regard to the first Table of the Bone, was contunding to the second. I found a very slender Adhesion of the *Pericranium* to the Bone, at the Circumference of the

the Wound, which I could easily separate with my Finger. Between that and the *Pericranium*, a Kind of purulent *Mucilage* was lodged, which was the Result of a Suppuration of several Fibres, that render them adherent in a natural State, and were probably separated by the *Tremor* caused by the Stroke, throughout the integral Part of the Bone. Then I sawed the *Cranium*, four Inches round the Circumference of the Wound; and, to discover the Nature of the Case more fully, I divided the *Dura Mater*, *Pia Mater*, and the Brain transversely, raising all together with the *Cranium*, without changing their natural Situation: No Contusion of the Brain appeared upon the Part I had raised. The Vessels of the *Pia Mater* were very turgid with Blood, as we generally find them. Between it, and the *Dura Mater*, was a Sort of purulent *Mucilage*, resembling what I had found under the *Pericranium*. The *Dura Mater* was intirely detached from the *Cranium*, above the Extent of a Card, and the same Kind of *Mucilage* contained between that and the *Cranium*. Throughout this whole Space, the *Dura Mater* was of a whitish Colour, as Membranes are that exfoliate, not one Drop of extravasated Blood appearing.

When I examined the *Cranium*, I discovered the Cause of this Disorder: There was no Fracture, but a Contusion of the Bigness of a Crown was visible in the *Diploe*, discoverable by a large black Spot, which was of an elliptical Figure, in a Line with the *Ecope*, and surrounded by several black Rays. I have preserved that Piece of Bone, and although it is dry, and I have had it some Time, the black Spot still appears on the internal Table, and not on the external; but it is more conspicuous against the Light.

What then could be the Occasion of his Death? It was the Contusion of the Bone, and the *Tremor* of its integral Parts, at the Time it was struck. Then several of those Fibres, which preserve a Communication between the *Dura Mater* and the *Pericranium*, were broke; and each of these broken Fibres, by coming to Suppuration, furnished a Quantity of *Pus*, in Proportion to their Magnitude, which occasioned the purulent *Mucilage* mentioned before. As the second Table happened to receive the greatest Shock, a larger Number of these Fibres were separated from the *Dura Mater*; and the *Pus* being consequently more abundant there, than under the *Pericranium*, it sooner destroyed the Fibres that resisted the Stroke at first, before a Suppuration equally abundant had Time to be formed, and produce an entire Separation of the *Pericranium*.

But when there was no extravasated Blood between the *Dura Mater* and the *Cranium*, or between that and the *Pericranium*, is it not reasonable to infer, that the *Dura Mater* was contused, and the Circulation interrupted in its Blood Vessels. This is very possible; but it is more probable, that the Laceration of the Fibres, which unite that Membrane to the *Cranium*, was the principal Cause of all the Disorder mentioned; from whence an *Erisipelas* proceeded, that afterward degenerated into a Putrefaction of the Part.

But what could occasion so sudden a Death? Was it a Reflux of suppurated *Pus*, which could not be freely discharged? Should it not rather be a Reflux of suppurable Matter, I mean, a Portion of Lymph, which stagnating in the Vessels of the contused Part, turned acrid by this Stagnation, and was afterwards absorbed into the Mass of Fluids? We are very sensible, that a Reflux of

Pus

Pus frequently happens in the Suppuration of membranous Parts and tendinous *Aponeuroses*.

In Cases parallel to this, the Trepan ought not to be deferred; and the sooner it is performed, the better. My Opinion may appear a little absurd, as it is proposed in Cases where there is no Fracture of the *Cranium*, or any Extravasation of Blood upon the *Dura Mater*; but when founded upon solid Reason, it would be often supported by Experience, was it not for fear of Clamour. What a melancholy Case is this, to see the Publick, upon the ill Event attending an Operation, to judge only from themselves; and without knowing the Cause, to blame the most judicious Practitioners, when the Distemper has destroyed the Patient, notwithstanding the Assistance of Nature and Art united together? This publick Clamour, tho' ill grounded, is often confirmed and aggravated by a Number of those, who being reputed Surgeons, have only the Title, and either through Jealousy, Ignorance, or Malice, blame the most accurate Operations, when the Success has failed, altho' the Patient must have inevitably perished without them.

If then we have discovered, by a Multiplicity of Experiments, that the *Dura Mater* is injured by a Contusion of the Bone; and that this Injury degenerates into a Putrefaction, which, hitherto, has occasioned the Death of a Number of Patients; in Opposition to common Methods, we must absolutely trepan betimes, though we are certain not to discover any apparent Alteration under the *Cranium*; but we ought first to make such a Prognostick, that the Honour of the Profession may not depend upon the Event.

I shall yet go farther, and say, that by neglecting the Operation of the Trepan too long, we at length perceive, by the Aperture made with it,
that

that the *Dura Mater* is altered, which may be known by its white or livid Colour; several adjoining Trepanns ought to be performed, in order to divide the *Dura Mater* in different Places, where the Colour is changed, and must consequently exfoliate. This is the Method to advance that Exfoliation, and to introduce proper Remedies upon the *Pia Mater*, and the Brain, to prevent future Accidents.

I know that Care ought to be taken of the *Dura Mater*, whilst in an healthy State, because it abounds in sanguiferous Vessels; but when a Part of it is deprived of the Communication it maintained with the neighbouring Parts, that Portion requires my Attention no more than to separate it. The twentieth and twenty-fourth Observations plainly prove, that it may be opened, and partly destroyed, without Danger of the Patient's Life.



O B S E R V. XXVIII.

Of a Wound upon the Head. Communicated by Mr. Metivier, sworn Surgeon at Paris, and Surgeon-Major of the Hospital at Pontoise.

ON the 9th of June, 1724, a Man aged thirty-four, came to the Hospital at *Pontoise*, saying he was a Soldier in the Marines. He had received a Blow on the superior and posterior Part of the left *Parietal*, making a Wound an Inch long, which penetrated to the *Pericranium*, and seemed to be made by a contunding Instrument. I could
not

not be truly informed of the Circumstances by the Patient, and dressed him gently. He was a long Time without any Fever, or the least bad Symptom.

The contused *Pèricranium* began to tumefy at the End of ten or twelve Days, which discovered the Bone, the Wound having denoted nothing particular to this Time. An *œdematous* Swelling of the Circumference arose; the Matter became very foetid, and formed several Cavities. Many other Tumours appeared on the posterior Part of the Head, on the right Side; the *Pericranium* rising and separating, wheresoever the Matter was stagnated. I dilated every Part where I found a *Sinus*. The Patient complained only of a slight Pain in the Wound, which I attributed to the *Ægyptiacum*, applied to consume the putrefied Flesh. Then I used Storax, which a little diminished the Stench and Putrefaction of the Wound, the Bone being bare almost the Breadth of the Palm of my Hand. A Fever supervened, the Pain of the Head augmented considerably, and became very acute. I was tempted to apply the Trepan, but could not fix upon any particular Place; all the posterior Part of the *Scalp* being tumefied, and finding no Indication at present that immediately required it, I thought myself obliged to wait for more pressing Symptoms. The *Cranium* being carious on that Part where it was at first bare, I made use of the *Rugina*, by which I discovered nothing. In short, four or five Days before the Patient's Death, the Fever increased, the Violence of the Pain deprived him of his Senses, and he died the 12th of *July*.

Upon opening the Head, I found no Fracture of the *Cranium*; but the *Dura* and *Pia Mater* were very much altered in some Places, on the right

Side of the posterior *Lobe* of the Brain, the *Pus* having corroded the Membranes, tho' the whole Substance of the Brain was entire.

I leave it to others more expert in Physicks than myself, to make Remarks upon this Case; but what appears evident is, that whether the Patient fell on the contrary Side to the Blow, or whether there was a Concussion, the Collection of *Pus* was on the opposite Side; which is sufficient to prove a Counter-stroke in the Substance of the Brain.

R E M A R K.

Altho', in this Case, the Operation of the Trepan proved unsuccessful, I thought myself obliged to publish this Observation, as it tends to make us understand the different Disorders that may happen under the *Cranium*, in Wounds upon the Head, when unattended with a Fracture.

Here we find the *Dura Mater* suppurated, with a Fracture of the *Cranium*; neither is it a Fracture alone that ought always to engage us to perform the Operation of the Trepan, other Symptoms requiring the same.

A great Part of the Head seemed *œdematous*, and all the *Aponeuroses* of the *Occipital* Muscles came to Suppuration; the *Pericranium* likewise, and was separated from the *Cranium*. Therefore an *Œdema* upon the Head, occasioned by a Blow, is almost a certain Symptom of a Suppuration, or that it is to be apprehended; which may serve us as an Indication not to neglect making a crucial Incision, was it only to defræenate the *Aponeurosis* and *Pericranium*, that are distended and inflamed.



O F

The T H O R A X.

O B S E R V. XXIX.

Of a fractured Rib, with an Emphysema.

IN the Month of *March*, 1710, I was sent for to a Coachman, who had received a Kick by an Horse upon the Left Breast, towards the fifth of the true Ribs. He had a violent Fever, attended with a spitting of Blood ; and was, moreover, swelled from the Chin to the Knee, by an *Emphysema* four Inches thick ; he had a Difficulty in Respiration, attended with an excessive Cough, which occasioned an extreme Pain on that Part where he had received the Kick ; nothing more externally appeared, than a red Streak made by the Impression of the Horseshoe. All these Symptoms induced me to apprehend a Fracture of one of the Ribs ; and that the very Points of the Bone pressing inwardly, had pierced the *Pleura*, and even the external Membrane of the Lungs, adhering to it in that Place : But I could not be certain of this, on Account of the *Emphysema* ; nevertheless,

I acted as though it had been the real Consequence, and applied myself to stop the Progress of that Symptom, still having a Regard to the Condition of the Rib. I made a Compress an Inch thick, which was dipped in a Defensitive composed of *Bole Armenia*, the White of an Egg, and Vinegar; then having squeezed out some of the Liquor, that the Compress might be the sooner dry and hard, I applied it to the Part affected, placing two other dry and thick Compresses upon the two Extremities of the fractured Rib, sustaining the whole with a Napkin.

In simple Fractures, where Points of the Bone are pressed inward, it would be contrary to regular Practice to apply a Compress an Inch in Thickness; but here the Case was different; the Business was to impede the Passage of the Air, which proceeding from the Lungs, through the Wound made with the Points of the broken Rib, spread itself to the *Pannicula Adiposa*; and this could be performed only in one Point. I bled the Patient immediately, and prescribed him a proper Diet.

The Bandage soon became loose; the Air, by Means of these three Compresses, being forced to pass into the neighbouring Vesicles; for which Reason I braced it more closely: The same Thing was often done in the Night, and the Patient was bled four Times, because he was of a replete Habit of Body, and the Emergency of the Symptoms required it. The *Emphysema* was nearly dissipated in the Space of twenty-four Hours; whence I easily discovered the Fracture, and renewed the same Bandage as the Evening before; excepting, that I applied a much thinner Compress upon the Place where the Blow had been given.

The Patient was bled again twice, and then the Cough and spitting of Blood ceased. The rest of his Treatment was common, and he recovered in a Month's Time.



OBSERV. XXX.

Of the Consequence of a Pleurisy.

ON the 20th of *November*, 1727, a young Man, twenty-four Years of Age, was attacked with a Pleurisy, accompanied with a Spitting of Blood. He complained of a painful Stitch under the right Breast, which gradually increased for the Space of ten Days. I know not whether he was bled soon enough, but, according to what he informed me himself, he was four Times bled, and thrice purged. This Method only abated the Fever, and the Violence of the Cough; but did not entirely remove it, the Stitch still remaining fixed to the same Place.

The Patient continued in this Condition for the Space of ten Months, having a slow Fever, with a continual Pain in his Side. At length the Fever augmented, and a Tumour appeared under the Breast; which grew soft, or rather insensibly suppurated in twenty Days.

At the Expiration of this Time, the Tumour diminished, and seemed to be reduced without the least external Discharge: But, perhaps, it evacuated internally, the Diminution of the Tumour being followed by an Expectoration of Pus, that sub-

sisted six Months ; during which Time, the external Swelling was almost dissipated. At length the Patient ceased spitting *Pus*, and the small Remainder of the Tumour was unpainful ; but the slow Fever still subsisted.

The Patient continued two Months in this Condition, following his common Occupation, and thinking himself almost recovered ; at the End of this Time, the external Tumour re-appeared, attended with Pain ; which obliged him to come to the Hospital the 28th of *April*, 1729.

I found the Nipple swelled, hard, and very painful, without much Alteration in the Colour of the Skin. I ordered him to be twice bled, and looking on the Tumour as symptomatick, and the Consequence of a greater Disorder in the *Thorax*, I thought proper to accelerate the Suppuration. To which End, I applied maturing Cataplasms, and it soon grew soft. In six Days I perceived a Fluctuation, and then opened the Tumour, which discharged half a small Porringer of ill-digested Matter ; and the intercostal Muscles being wasted between the fourth and fifth of the true Ribs, I felt an Hardness at the Bottom under my Finger, and then dressed the Wound according to Art.

The slow Fever, which had subsisted from the Beginning, continued ; and the Patient growing gradually weaker, died in the Space of twelve Days.

I opened his Body, and found the third, fourth, fifth, and sixth of the true Ribs thicker than the others, and seemingly exostosed, but without Caries. The right Lobe of the Lungs was entirely adhering to the *Mediastinum*, tho' very slightly. The inferior Part of it adhered to that Portion of the *Pleura*; lining the *Diaphragma* ; which Adhesion was so strong, that these two Parts could not be

be separated from each other. The Lobe of the Lungs adhered likewise to the *Pleura*, on that Side where the Pain was felt at the time of the Pleurisy: This Adherence was very strong, and equal to that with the *Pleura* and *Diaphragma*. There were only two Places where I found no Adhesion, one at the posterior Part of the *Thorax*, four Fingers Breadth from the Body of the *Vertebræ*, from the first of the true Ribs to the seventh, in which Place there seemed even to have been none.

The other was about the Bigness of a Card, directly where the Pain had been fixed in the Pleurisy: An Impostumation was formed between the two Membranes, in the very Center of the Adhesion; and the Quantity of *Pus* being there increased, had wasted and separated, by Degrees, a Part of the Adherence toward the posterior Part, and filled the Space, before-mentioned, on one Side of the *Vertebræ* of the Back.

In that Place where the *Pus* had been formed, the external Surface of the Lungs was thicker than a Crown, and the *Pleura* than four; both very hard, and as white as the Eschar of a Wound made with styptic Water.

In the rest of the Adherence, which had not yet suppurated, I performed what the *Pus* had done in other Places; that is to say, I separated the two Membranes as exactly as I could, and found a Number of white Spots that were beginning to suppurate, the Suppuration being more advanced in some than in others. The Body of the Lungs, on both Sides, was stuffed with an infinite Number of hard and scirrhus Specks, some whereof began likewise to mature.

R E M A R K.

Hence it appears, that this Kind of Abscess begins, as may be observed in the preceding Case, by an Adhesion and Inflammation of the *Pleura*, and that of the external Membrane of the Lungs at the same Time. When the Quantity of *Pus* increases, it gradually separates the two united Membranes; and when the Operation is deferred, Part of the Adhesion will be broke in some Places, whence the *Pus* will be expanded into the Cavity; and what was an Abscess between the *Pleura* and the Lungs, now becomes an *Empyema*.

Suppose the *Pus* to be formed, is it proper to make the Aperture in the Place of Necessity, which seems to be in the most *œdematous* Part of the Tumour? (The proper Place was generally supposed to be that where the Pain of the Side subsisted during the Inflammation.) - Ought it to be performed in the Place of Election? If the Abscess is opened as soon as the *Pus* is formed, as it is still included in a Sort of *Cystis*, the Opening should be made in that Place where the Pain began; and according to regular Practice in Surgery it ought to be done as soon as the Symptoms of the Formation of the Matter are past. A slight *Œdema*, where the Pain in the Side was fixed, sufficiently indicates the Place of Operation; but when the Operation has been deferred, and we are certain that the *Pus* having broke the Adhesion, is collected in the Cavity; then we must operate at the Place of Election, the Place of Necessity being generally less commodious to give a free Discharge to the *Pus*, and the Injections necessary in Wounds of the *Thorax*. In this last Case, if the Patient is fortunate enough to recover, the Infiltration, which
occa-

occasioned the *œdematous* Tumour, will dissipate as soon as the *Pus* is discharged. It is necessary to remark, that only a bad Prognostick can be made at such a Time.



O B S E R V. XXXI.

Of opening the Body of a Person who died of a Pleurisy.

AS soon as a Suppuration happens in the *Thorax*, we cannot be too attentive in discovering the Time when the *Pus* is formed, in order, early, to prevent those Disorders it occasions, and even Death, which is almost a certain Consequence.

About the Beginning of *June*, 1726, a Person was brought to *La Charité*, who was attacked with a Pleurisy, and sent to the Fever Ward, where he had a Physician to attend him. When the most violent Symptoms were appeased, he seemed to be restored to his Health; but this Cure was only apparent and imperfect, the Patient always having a slow Fever, and a Difficulty in Respiration; which is the Term he used the first Time I saw him, to explain an Uneasiness he felt, that was attended with a slight Restriction of Breath. This was the twentieth Day after his Distemper.

When he had indifferently explained the Symptoms with which he had been afflicted, he shewed me an *œdematous* Swelling on the right Side of the Chest,

Chest, without any Change in the Colour of the Skin. This Swelling, extending from the third of the false Ribs to the sixth of the true, was more sensible in one fixed Point than in any other, when it was pressed upon; which was between the last of the true Ribs, and the first of the false, towards the Insertion of the *Musculus serratus major*. The Impression of my Finger remained after bearing upon the Part, but no Fluctuation could be perceived. That whole Side of the Chest appeared at first Sight sensibly larger than the other. I interrogated the Patient, who told me, that his Difficulty of breathing was the same in all Situations, not feeling more Pain when he lay on the distempered Side than on the other.

Being convinced of the Necessity there was to perform the Operation, I ordered the Infirmary-Keeper to bring him into the Ward of the Wounded, that I might perform it the next Day.

The same Night the Patient spit three or four Basons of *Pus*, and died in the Morning. One Thing, perhaps, might hasten his Death; which is, that he went to a Tavern near the Hospital, with one of his Comrades, where he drank Part of one, or several Bottles of Wine.

Before I proceeded to open the lower Belly, I first opened the *Thorax*, as I should have done, had the Patient been living, in Case of Necessity; which was between the last of the true and the first of the false Ribs; this being the Place where he complained of the most Pain: A Quart of white thin *Pus* was discharged by the Aperture; the *Pannicula Adiposa*, and intercostal Muscles were entire, not being wasted by the Matter, but of a deep red, such as appears when the Flesh is contused and gorged with Blood. Hence we may
I conclude,

conclude, that it is contrary to good Practice, to wait till the Matter discovers itself externally.

Then I opened the *Thorax*, by raising the *Sternum*, and found most of the internal Part of the Lungs, on that Side, almost in a natural State, excepting a little *Pus* in some Branches of the *Bronchie*: The *Pus* he expectorated, had, in all Probability, passed through these Canals; the whole *Lobe* on this Side possessed only half the Cavity of the *Thorax*, the Quantity of *Pus* gradually collected having so far restrained it, as to be only half dilated by Inspiration; it was adherent to the whole *Mediastinum*, and a little on the inferior Part to the *Diaphragma*. Its external Membrane was suppurated, and covered again with a thick purulent Matter. This Membrane was perforated in the inferior Part, where there was an Hole, through which I could thrust my Finger into the Lungs: Part of the *Pus* contained in the Cavity must undoubtedly enter the Lungs by this Hole, and was afterwards expectorated.

Half the *Pleura* was putrefied, as well that Portion of it which lines the false Ribs, as that covering the *Diaphragma*, and was, like the Lungs, spread over with a thick purulent Matter. Moreover, there was an Abscess about the Bigness of a Crown, formed in that Part where the Cartilages of the false Ribs unite to be joined to the *Sternum*; but the *Pus* it contained had not pierced the *Pleura*, to be evacuated into the Cavity of the *Thorax*.

R E M A R K.

I said, that upon examining the Patient, I found that Side where the *Pus* was collected larger than the other, which will generally happen, when the Collection is considerable, and we have no Reason
to

to be surprized at it. In Inspiration, the *Thorax* finds no Obstacle to its Dilatation, and the Ribs are raised without Difficulty; but in Expiration, the Space taken up by the collected *Pus*, is an Hindrance to its Contraction; and those Muscles, which should depress the Ribs, meeting with a Resistance, it is possible that they may not be depressed to the very same Point they were at before Inspiration. Suppose that in every Action of Respiration, the Ribs of the Side affected, lose only the thousandth Part of their Motion, or even less, it follows, that in the Space of twenty-four Hours, that Side may appear more elevated than the healthy one, so as to become visibly larger one than the other. This is not the only *empyecal* Patient on whom I have made the same Remark.

The Difficulty of lying on the Side opposite to the Collection of the *Pus*, is always accounted a Sign of an *Empyema*. This Sign, indeed, is in the Affirmative; but the Want of it does not prove the Negative; because, when there is an Adhesion of the Lungs to the *Mediastinum*, the Patient may lie equally on both Sides.

I opened another Body at *La Charité*, who had five Pints of *Pus* lodged upon the *Diaphragma*; he had no external Sign however of any Collection of *Pus*, but a slight *œdematous* Tumour. Therefore, a yielding Tumour of this Kind is a Sign of a Suppuration in the *Thorax*; but as this *Œdema* is the same, whilst the *Pus* is forming, as it is after it is formed, this Sign cannot denote a proper Time for the Operation. Hence, it behoves the Surgeon to fix his Attention upon other Symptoms, some whereof indicate that it is forming, and others, that it is formed.

With regard to the Patient, who is the Subject of this Observation; I found no Adhesion, after his
Death,

Death, between that Portion of the *Pleura* lining the Ribs, and the external Membrane of the Lungs ; but in all Probability there had been, and that it only disappeared by the large Inundation that was made : The Putrefaction I met with in these Parts, is almost a certain Proof of my Conjecture.



O B S E R V. XXXII.

On opening a Body after an Empyema.

I Remarked, in the preceding Observation, that the Sign of a Collection of *Pus* in the *Thorax*, deduced from a Difficulty in Respiration, happening when the Patient lies on the Side opposite to the diseased, is often a false and uncertain Sign : And the following Observation will be a fresh Proof of it.

In the Month of *July*, 1726, a Patient was brought to *La Charité*, who had a deep Abscess opened two Days before, under the Angle of the *Os Maxillare*, on the Right Side. The internal Surface of the *Processus Mastoides*, was carious in that Part : The third Day from the Operation, a Reflux of purulent Matter happened, which was declared by a Shivering, and an excessive Pain on the Left Side of the *Thorax*, attended with a considerable Difficulty in Breathing. The violent Symptoms, or rather the Signs denoting a Suppuration, lasted three Days, and then the Patient appeared infinitely better. By reasoning with him upon his Distemper, he told me, that when he moved, he
felt

felt something flow in his Chest, having no Difficulty in Breathing, but when he sat. He rested the same on both Sides, and had no other Sign of a Collection of *Pus*, than the Fluctuation he perceived himself, with a slight Thickness of the Skin on that Side, without any Pain, Inflammation, or *Œdema*.

Finding the Case not easily determined, I had a Consultation with several of the Fraternity, in which it was decided by a Plurality of Voices, that we ought to wait till something certain indicated the Necessity of the Operation. The Fever continued, accompanied with cold Sweats; we had no other Sign of a Collection of *Pus*, and the Patient died in a Week's Time.

I opened the Body, and found about five Pints of *Pus* collected in the *Thorax*; the Lungs adhered to the *Mediastinum*, and no where else; the Abscess being formed between these two Parts, at the Adherence occasioned by the Inflammation of the external Membrane of the Lungs, and that Part of the *Mediastinum* which it touches. Whilst the *Pus* was forming, it disunited the Adhesion in a small Space, and fell upon the *Diaphragma*, where, by Degrees, the Quantity considerably increased.

R E M A R K.

All Authors inform us, that Persons troubled with an *Empyema*, cannot lie on the Side opposite to the Collection of the *Pus*; and give this Reason for it, because, in this Situation, the collected *Pus* presses upon the *Mediastinum*, which Weight is incommodious to the Patient: Nevertheless, in the present Observation, as in some others, we find *Pus* collected between the *Mediastinum* and Lungs, after their Adhesion; and, that the Quantity has
there

there increased to such a Degree, as to break the Adhesion: Yet the Patient, during this Time, lay on the opposite Side, without feeling more Pain. Is not the Pressure occasioned by a Quantity of *Pus* thus locked up, and in a State of Fermentation, equivalent to the Weight of the Fluid in an *empyecal* Person, who lies on the Side opposite to that affected?

It is true, that one over-poises the other; but there is a Difference worthy Attention. In an *empyecal* Person, where the Lung is not adhering to the *Mediastinum*, and he lies on the Side opposite to that where the Collection of *Pus* is made, the *Mediastinum* finds itself loaded on a sudden with an unusual Weight: For the *Pus*, in this Distemper, is generally first formed in a *Cystis*, and afterwards falls upon the *Diaphragma*, by the Rupture of this *Cystis*: But when the *Cystis* is between the *Mediastinum* and the Lungs, the *Mediastinum* gradually yields to the Volume of *Pus*, in proportion as it is formed, as it ferments and dilates the *Cystis* wherein it was contained; from whence Habitude becomes a second Nature.



O B S E R V. XXXIII.

Of an Abscess in the Lungs, occasioned by healing an Ulcer on the Leg.

U L C E R S attending the Leg in old People, ought to be looked upon as critical, and therefore should not be healed. Their Suppuration is not only requisite, but so necessary to the *Œconomy*

mony of Nature, that they are rarely healed, without some supervening Accident, in a short Time, which is often attended with ill Consequence.

My Cousin Mademoiselle *le Dran*, aged 73, was attacked with small Ulcers upon the Leg, with which she had been afflicted for two or three Years. She had often solicited me to use my Endeavours to cure them; but I always represented to her the ill Consequence that might attend the healing of those Ulcers, looking upon them as a necessary Drain to Nature. At length, what with the Repose she took, and the Desiccatives applied without my Knowledge, the Ulcers healed in the Year 1726.

On the fifth of *May*, 1727, she was seized with a moderate Fever, accompanied with a dry Cough, and Difficulty in Breathing. She was bled on the eighth Day by a Surgeon of the Town where she lived, who drew from her a fizy Blood, resembling that in pleuritick Cases. Beside the Accidents I have remarked, she complained of a Pain on the Right Side. A second Bleeding might have been necessary; and even more, to obviate the Progress of the Distemper in the Beginning. But notwithstanding the pressing Persuasions of her Surgeon, she refused to be bled again, upon Account of her Age: Therefore he could do no more than to give her the Decoction of the Woods, commonly prescribed in such Cases: This, added to some gentle Narcoticks, in some measure, diminished the Symptoms before-mentioned.

Toward the latter End of the Month, the Fever having ceased, tho' not the Cough, or Pain in the Side, it was thought proper to advise the Patient to a Milk-Diet.

By this Means the Cough abated, and the Matter expectorated was sometimes laudable, and some-

sometimes purulent. Nevertheless, the Patient perceived a Weight on the Right Side of the Chest, with a Sort of an Uneasiness, extending from the *Sternum* to the *Vertebræ*.

The Months of *June*, *July*, and *August*, passed in the same manner, the Patient taking little Notice of her Distemper; nevertheless, she had a slow Fever continually, which, at uncertain Periods, was irregularly increased.

On the second of *September*, the Fever denoted a double *Tertian*, preceded by a shivering Fit; which aggravated the Pain in the Chest, and Cough. The Excretions were not so easily performed, what she expectorated being whiter and thicker than ordinary. By the use of the Juice of Herbs in *Apozems*, and a few Purges, these Symptoms were abated, though not intirely removed. In the Month of *November*, a slight Swelling appeared upon the Face and Feet of the Patient, which disappeared in the Morning, and returned again at Night. This Symptom was intirely dissipated by Means of a diuretick Decoction, which was sometimes made purgative; the Fever ceased likewise, but not the other Symptoms.

In *January*, 1728, the Fever returned with Violence, as well as the Cough; and in what she expectorated, which was always bad, a little Blood began to appear; the Pulse grew hard and confined, and the Pain of the Side more acute than ever. Nevertheless, as they assured me, there was no *Œdema* or Swelling, Phlebotomy, for which there was a strong Indication, and a pressing Necessity, was proposed by the Surgeon, in vain, who could never bring her to consent to it; therefore, we still proceeded to administer *Beckical* Medicines, and *Lobocks*, to facilitate the Expectoration.

These Symptoms abated, and the Patient was in tolerable good Health till the beginning of *May*. It will be proper to remark in this Place, that from the twelfth of *March*, the Surgeon having examined that Side, he felt a small Tumour, of the Bigness of an Hazel-Nut, in that Part which had been the most painful : This Tumour was moveable, tolerable soft and indolent, resembling a small Wen. In *May* the Distemper seemed to be more confirmed, all the Symptoms being considerably augmented ; a Quantity of Streaks of Blood, mixed with *Pus*, appeared in the Expectations, which were now more abundant than ever ; the Patient laboured under *Insomnia* ; the slow Fever that continually attended her, became more sensible ; she was attacked every Evening with a strong Fever, preceded by Shiverings, which terminated by violent Sweats. The Patient constantly had an insupportable Stench of *Pus* in her Mouth ; and notwithstanding all these Symptoms, used only edulcorating and pectoral Medicines.

The small Tumour, I mentioned before, begun to augment, and grew a little *œdematous* at the Circumference ; which, at length, engaged the Patient to permit that I should be consulted.

Upon hearing an Account of her Distemper fully related, I judged, that we had convincing Symptoms of a Suppuration, or rather of an Abscess in the Lungs, from whence this small Tumour proceeded. I should have confirmed my Opinion with more Assurance, if they had related the Particulars of my Cousin's Distemper at that Time, as they were afterwards exactly described to me by the Surgeon who attended her. I went on the 18th of *June*, with a Design to perform the Operation.

I began

I began first, by examining into the Nature of what was expectorated, which I found full of white digested *Pus*: Then I examined the Wen in Question, which was a Tumour of the Bigness of half a Crown, very little elevated, indolent, and without Inflammation; besides, an ill-digested Fluid resembling Paste might be perceived by the Touch.

This did not make me alter my Opinion, as to the Nature of the Distemper; and being certain to find a Collection of *Pus* in the *Thorax*, under the Ribs, I made a crucial Incision on the Tumour with a Lancet, taking off a great Part of the Angles, to make sufficient Room: No fluid Matter was discharged; what filled the Tumour was of a glutinous Substance, resembling Glue half melted. I took this Substance between my Finger and Thumb to extract it, which stretching like a Cord, came from the Inside of the *Thorax*, in the Interval between the third and fourth of the false Ribs, reckoning upwards. I pulled with both Hands, as though it was a real Cord. When I had drawn out about six Inches of this Substance, I found the Remainder adhered; then ordering the Patient to cough, a liquid Matter immediately burst out, mixed with Curds of different Colours; the whole very nauseous and offensive to the Nose; and more than three half Pints of this Liquid was discharged in an Instant. I thought it improper to evacuate the Whole, for fear of exhausting the Strength of the Patient. I thrust my Finger into the Aperture, and found the fourth of the false Ribs carious, and its whole Circumference uncovered; the intercostal Muscles being wasted by the *Pus*, between the fourth and fifth, as well as between the third and fourth Ribs, which made two Openings into the *Thorax*.

To facilitate the Discharge of the remaining *Pus*, I only put a Piece of Linen upon the Wound, about a Foot square ; upon this I placed a thick Pledget of Lint, answering the Wound ; and over this some thick Compresses, which were secured by a Napkin round the Body and the *Scapular*.

Above a Quart of *Pus* was discharged the first twenty-four Hours, which moistening the whole Dressings, the Surgeon of the Place was obliged to change them every sixth Hour.

The violent Fever that generally raged in the Evening about six, came on later than ordinary, and lasted only two Hours ; and from that Moment, to the Time of her Recovery, the Fit never returned.

The fourth Day I injected Barly Water, mixed with *Mel Rosarum*, into the Wound ; and as the *Pus* had long remained in the Lungs, the Kind of *Cystis* containing, it, had burst on that Side, which is proved by the Expectoration of the Matter for a long Continuance ; the Injection excited a Cough, and Part of it passed by the Mouth, mixed with *Pus*. The seventh Day after the Operation, I attempted a second Injection, but the Cough was so violent, that I desisted. Though we had declined using the Injection, the Patient spit up some purulent Matter, which gradually diminished till the twentieth Day, when it intirely ceased. Then I thrust my Finger between the Ribs into the *Thorax*, to discover whether the Adhesion of the Lungs to the *Pleura* was far from the Circumference of the Wound, and found it to be about the Breadth of three Fingers from it ; but I could not feel the Bottom of the *Cystis* in the Lungs. Moreover I introduced the hollow Probe into the *Thorax*, which penetrated about four Inches, tending directly to the *Mediastinum*.

Then

Then I poured a little green Balsam, gently, into the *Cystis*, without injecting it, lest it should excite a Cough ; after which, that it might spread thro' the whole Cavity, I ordered the Patient to lie on the contrary Side for a Quarter of an Hour ; and, from this Instant, I began to dress her in a gentle Manner, using only a short soft Tent, that I might command the external Aperture, till the Bottom was healed.

From the Day I performed the Operation, I committed the Opening, between the fourth and fifth of the false Ribs to the Care of Nature.

They continued to pour ten or twelve Drops to the Bottom of the Wound every Day, and the thirty-second I examined it with the hollow Probe, and found that it penetrated only an Inch beyond the Ribs.

I desired the Surgeon to continue the same Method only once in a Day, or twice, if the Discharge of *Pus* required it ; which Direction he followed, shortening the Tent by Degrees.

In *September* I went to visit my Cousin again : When I probed the Wound, I found the *Thorax* entirely closed, and extracted several Pieces of the carious Rib.

I thought it proper to leave a Drain for this Part, to supply the Discharge, of which Nature had been deprived, by healing the Ulcers of the Leg. For this Reason I advised the Surgeon to keep a Tent in the Wound, which he did for some Time ; but, I suppose, it healed of its own Accord ; and, on the fourth of *November*, I was informed that the Wound was entirely cicatrized, and the Patient enjoyed a perfect State of good Health.

About a Year after the Ulcers upon the Leg returned ; but the Patient finding, by her own Experience, that it was dangerous to heal them,

we attempted to make them supportable, by prescribing Rest, and the Use of a laced Stocking, made of a Dog's Skin; which, without healing them, prevented their Increase. She enjoys a good State of Health at present, and feels no Pain in her Chest.

By the Description of what preceded this Abscess in the *Thorax*, we see that the Distemper is susceptible of many Variations before the *Pus* is formed. The same Thing will appear in the subsequent Observation.



O B S E R V. XXXIV.

Of a false Pleurisy, or Abscess formed between the Pleura and the Lungs.

IN the Month of *January* 1728, a certain Abbot was troubled with a slight Cold, or rather a dry Cough, for which he asked my Advice. I looked upon the Cough rather as an Inflammation of the Lungs than an ordinary Cold, and prescribed Bleeding, which he deferred. The Cough abated by the Use of Almond Milk, that he took every Night going to Bed.

It returned however some Time after, and ceased again, but in such a Manner only, that he was troubled with it several Times in the Winter.

The 21st of *April* he was seized with a slight Fever attended with a Pain in his Loins, which was immediately followed by an Inclination to vomit. He was bled, and the next Morning, the Fever continuing, was bled a second Time. Some Streaks of clear Blood appeared in what he expectorated

torated in the Day ; and tho' it was doubted whether the Blood proceeded from the Chest or not, the Patient was bled a third Time. He was purged the third Day with a little *Manna* and *Glauber Salts*. On the fourth, the Fever continuing and increasing, he was bled a fourth Time ; and a Pain arising on his Right Side, he was obliged to be bled thrice more in the Space of two Days. The Blood was fizy each Time, excepting the first, when it was of a Vermilion Colour. He went freely backwards.

From the second Day of the Distemper, nothing appeared suspicious in his Expectations ; but on the seventh they were bloody. Nevertheless, the Fever did not increase, and the Patient rested a little, awaking only by the Pain in his Side, and, perhaps, by the Uneasiness he was in on account of his Distemper. Antipleuritick Cataplasms were applied to the Side affected, which, in some Degree, diminished the Pain.

The Obstinacy of the Disease occasioned an eighth Bleeding ; after which the Pain ceased in the Morning, and returned in the Evening. Tho' proper Remedies were administered to the Patient, the Cough still continued, and what he expectorated was always stained with Blood, which seemed to proceed from the Lungs. For several Days they made use of an Infusion made with the Heads of White Poppies, Cat's-foot, Colt's-foot, and Maiden-hair ; and tho' the Pain in the Side was not perfectly removed, and the Expectations did not yet appear white and well digested, the Patient was twice purged.

His Complexion was changed yellow, and his Legs a little swell'd, especially the Right. At length, on the seventeenth Day, a Shivering supervened, which was followed with a Fever that lasted eight

Hours, and declared itself a *Tertian*. By the Advice of his Physicians, it was resolved to give him the Bark, with an Emulsion of Melon Seeds. This produced a good Effect, the Fever failing the third Fit ; but not without much heating the Patient.

The twenty-fourth from the Distemper he seemed tolerably well, and slept quietly ; but notwithstanding this Calm, which seemed to give us Hopes, the Pain in his Side revived on the twenty-sixth, with a fixed Pain, as well toward the *Pectoral* Muscle, as the interior Part of the *Serratus Major* ; which occasioned a great Difficulty in Respiration. He was bled a ninth Time, and the next Day a tenth, evacuating a fizy Blood like the former. This last Bleeding seemed to calm the Pulse very much, which was violently agitated before : But this Calm in the Pulse was only an Accident of the Weakness proceeding from the Loss of Blood, the Cough still subsisting, and the Pain undiminished. Nothing more was done than the Application of Anodine Cataplasms upon the whole Extent of the Pain.

On the twenty-ninth from the Distemper, they perceived that Side a little *œdematous*, and the *Œdema* increased to the thirty-third.

Being apprised of all that had passed, and perceiving an *œdematous* Tumour, I began to reflect upon the Shiverings the Patient had felt some time before, and presumed (not being yet certain) that we might date the *Epocha* of the Suppuration from this Time ; but our Opinions were not unanimous.

Some Time passed in the Use of different Cataplasms, Pectoral Ptisans, Bechial Syrups, and Juice of Borrage. The Expectations still remained tinged with Blood, and the Cough, towards the Evening, was accompanied with an Inclination to vomit.

The

The Patient grew very weak, had a slow and continual Fever; his Tongue was furred, and could taste nothing; this obliged his Physicians to prescribe him two Ounces of *Manna*, with a Grain of *Kermes*, to be taken at three Doses, which procured a large Evacuation; and then the *œdematous* Swelling upon the Hand and Foot of the Side affected, was considerably diminished; the Face only remaining inflated, especially on that Side. Altho' the *Œdema*, which had possessed that whole Side, from the twenty-fourth Day of the Distemper, was entirely dissipated; nevertheless, this Side, to the Touch, appeared more fleshy than the other.

He remained eight or ten Days in this Condition; after which he had irregular Shiverings, followed by a Fever, that terminated in nocturnal Sweats; and the Patient, during the Fever, and even the Sweats, sometimes felt a Chilliness in his Back.

When he had remained thus for fifteen Days, they seemingly perceived a Mixture of *Pus* in his Expectations, without being certain whether what appeared such, was so or not. The Expectations changed, and degenerated into a frothy Lymph, which he could not evacuate without a painful and laborious Fit of Coughing.

In a few Days the *Œdema* re-appeared upon the Side and Hand, but much less than before; and, from that Time, to the End of the two first Months of his Distemper, the *Œdema* on the Side often changed, increasing and diminishing alternately.

Now I absolutely concluded there was a Collection of *Pus*. The irregular Shiverings preceding the Duration of the *Œdema*, and the continual Pain, were sufficient Indications to form a Judgment, and to induce me to propose opening the
Thorax.

Thorax. Two of the Physicians who visited the Patient, were of the same Opinion ; but our Opinions were questioned, because others maintained there was no *Pus*, and, consequently, no Necessity to perform the Operation.

The Fears of a Family, added to those of the Patient, who were all alarmed at the very Name of an Operation, upon a Division of Voices, carried it against the Reasons we gave. The Vulgar, and all those who understand nothing but what becomes the immediate Object of their Senses, would have the *Pus* sensibly declared to the Touch, in order to decide whether there is any or not, or to resolve upon an Operation. Not being sufficiently acquainted with the Structure of the Parts, they cannot conceive, that in a Case where *Pus* is lodged between the *Pleura* and the Lungs, there are too many Teguments to be wasted before it can be felt ; therefore our Opinion was not followed. Goats Milk was used for eight or ten Days, but he was obliged to relinquish it.

On the 24th of *June* the *Œdema*, which had disappeared for some Days, returned again upon the Side affected ; and that Part which was very painful in the Beginning of the Distemper, was now considerably relieved, the Pain remaining only at the Circumference.

Nevertheless, the Patient decayed daily, and grew extremely emaciated ; his Complexion became very fallow, his Eyes hollow and dim ; he had a slow Fever, that increased in the Evening : At length they began clearly to distinguish the Patient's Condition, and to approve the Reasons we had urged before ; and Messieurs *Malaval*, *Guerin*, *Boudou*, and *Morand*, were consulted at different Times. They examined the Patient, and made him lie on both Sides, and upon his Back, which

which he endured without much Pain. When he lay upon the Side opposite to the Part affected, he felt only a slight Restriction on the *lateral* Adherences of the *Diaphragma*; his Inspirations and Expirations were performed with Ease, unless when he was sitting. He felt little Pain in his Side when he coughed; notwithstanding, when they considered the long Continuance of the *Œdema*, and the faithful Account of what had preceded, with the Patient's present Condition, these Gentlemen concluded the Operation absolutely necessary, and the only Question was, when it should be performed.

It accidentally happened, that the Patient, who, till this Time, was only attended with irregular Expectorations, discharged by spitting three or four Spoonfuls of white Matter the Night following.

The 26th of *June* we all met in Consultation, with the Addition of Mr. *Petit*. At this Time, upon examining the Expectoration, the Operation was unanimously resolved upon, and was performed the next Day by Mr. *Petit*. About a Quart of ferous *Pus* was instantly discharged: Then he thrust his Finger into the *Thorax*, which being withdrawn, there issued half a Pint of transparent, but not purulent Matter.

R E M A R K S.

Since Authors have assigned the Difficulty in Respiration, the Impossibility of the Patient's lying on the contrary Side, with other Symptoms, as certain Signs of an *Empyema*; it is a little surprising, though the Patient in Question, and the other mentioned in the preceding Observation, were unattended with these Symptoms, that a
Quart

Quart of *Pus* was discharged from both these Patients by the Operation.

Let us not understand by the Term *Empyema*, all Distempers in which there is a Collection of *Pus* in the *Thorax*; but distinguish being a Collection of *Pus* falling upon the *Diaphragma*, and an Abscess formed in a *Cystis*, or Bag, wherein it is inclosed; for the Term *Empyema* properly belongs to the former only, viz. the Expansion of Matter on the *Diaphragma*. Then reflecting, that this is generally the Consequence of an Abscess formed in some Part of the *Thorax*, between the Lungs and the *Pleura*; an Abscess that has burst, the Matter whereof is expanded upon the *Diaphragma*, we shall always find that the Symptoms of Suppuration are antecedent to those of the *Empyema*; and partly cease, when those of the *Empyema* appear.

This being well understood, let us suppose that the *Pus* inclosed in a *Cystis*, as it was in this Case, cannot produce the same Symptoms, as when it is expanded upon the *Diaphragma*. To be convinced of this, we have nothing more to inquire into, than the Difficulty in Respiration attending this Expansion of Matter.

Does it proceed from the Lungs, for want of being sufficiently dilated to admit the Air? Does it proceed from the want of a free Action of those Parts contained in the *Thorax*? That it does not proceed from the Lungs is very manifest; and we need only have Recourse to the Manner in which Respiration is performed, to make it evident.

The Lungs alternately dilate and contract; in Inspiration they are dilated, and the Air enters; in Expiration the Lungs contract, and at the same Time are compressed by the Contraction of the *Thorax*, by which Means the Air is expelled. The Dilatation of the Lungs is only a passive Motion,
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independent of itself, and only owing to a Dilatation of the *Thorax*; but its Contraction is an active and passive Motion at the same Time, since it partly depends upon the Structure of the *Thorax*, and the Action of the Muscles adapted to its Contraction. If the Lungs dilated of themselves, it is very evident that the Collection of *Pus* would be an Obstacle to the Dilatation of the *Thorax*, and confine Inspiration. But since the Dilatation is only a passive Motion, it is dilated in proportion to the Capacity of the *Thorax*; and when this Cavity is half filled, the Lungs will only be dilated in Part. Every one knows from his own Experience, that our Respirations are not always equal; and that it is not a Law of Nature, to have the Lungs dilated to their full Extent at every Inspiration.

Hence, if the Lungs are not discomposed at a Semi-inspiration, of which all Mankind is convinced; if the Extent of the Capacity of the *Thorax* must determine the Point of the Lungs Dilatation; it is evident from hence, that a certain Quantity of Liquid inclosed in the *Thorax* cannot obstruct the Dilatation of the Lungs by its Bulk. But, on the contrary, it is evident and certain, that a Quantity of *Pus* contained in the *Thorax*, so far from preventing a Contraction of the Lungs, would rather facilitate than obstruct it.

Since the Lungs are not accountable for this Difficulty in Respiration, complained of by those who have Matter expanded in the *Thorax*, it must then be attributed to the containing Parts, which are the very Agents of Respiration.

Ought this equally to happen, when the *Pus* is lodged in a *Cystis*, and when it is fallen upon the *Diaphragma*? This is a Question necessary to be cleared.

When

When there is an Expansion of Matter, the *Diaphragma*, and other Muscles serviceable in Respiration, cannot act with a natural Freedom. Inspiration is tolerably easy; but Expiration very difficult, the *Diaphragma* being obliged to raise a Weight of Liquid, that was fallen upon it. But when the *Pus* is contained in a *Cystis*, it does not press upon the *Diaphragma*, which is the principal Organ of Respiration; from whence Expiration will be performed without Difficulty.

I am sensible, that Pain may render Inspiration difficult, whilst the Inflammation subsists; but the Point in Question relates only to *Pus* already formed, and not to that which is forming; and it may be easily remarked by this Observation, that the Difficulty of Breathing was not perceivable till twenty-six Days after the Beginning of the Distemper; at which Time the Pain in the Side was excessive.

In the thirty-second Observation, we plainly perceive the Reason why, when the *Pus* is lodged in a *Cystis*, the Patient can lie on the Side opposite to that affected, which he cannot do when the *Pus* is expanded on the *Diaphragma*. Having explained the Reason of this before, it would be fatiguing the Reader to repeat it.

If the Reasons given before are seriously reflected upon, we shall be no longer astonished that the Distemper mentioned in this Observation was generally unattended with those Symptoms that accompany and characterise an *Empyema*.

If the Question should be asked, at what Time the *Pus* is formed, that we may properly defend our Opinion upon the like Occasion? I ought first to give my real Sentiments upon the Rise of this Distemper.

An Adhesion of the external Membrane of the Lungs with the *Pleura* was probably formed at the Beginning, by a slight Inflammation in those Parts; which Inflammation increasing, these Membranes became more or less thick in Proportion. Those who have met with frequent Opportunities of opening dead Bodies, occasioned by the Inflammation of membranous Parts, must have observed, that those Membranes, naturally thin, become thicker by the Inflammation; and I have seen some that have increased above two thirds of an Inch in Thickness.

As all Inflammations, that do not terminate by Resolution or Gangrene, generally come to Suppuration, several small Abscesses may be formed in one Space or other between the two united Membranes; and from the Degree of the Inflammation not being equal in all Parts, we may fix the *Epocha* of the Beginning of each Abscess; and therefore one may be formed several Days before the other. Is it during the Time the Fever denotes a *Tertian*? This is difficult to determine. Is it at the Time when those irregular Shiverings happen? It appears more probable, and, according to Observation, from daily Practice, every Abscess is attended with fresh Shiverings.

In each of these Abscesses, thus separated one from the other, the Quantity of *Pus* daily increasing, partly detached one Part of the Adhesion; and thus, in a Series of Time, several Abscesses have united, and formed only one, by Means of a *Cystis*, composed of the two Membranes, and Part of the Adhesion still subsisting.

Therefore, reckoning the Time of the irregular Shiverings for the *Epocha* of the Formation of various Abscesses, several Days are required to bring them into one, and then the Aperture may be made.

If

If it was possible to guess at the Extent of the Adhesion, we must have waited to make the Opening, till every single Abscess that should suppurate is united to the Principal.



O B S E R V. XXXV.

Of Stones in the Lungs, attended with an Impostumation.

ALL Diseases proceeding from an internal Cause, take their Rise from a Defect in the Parts, or in the Fluids that water them. A Defect in the Parts is the Occasion that those People, who are naturally strait-chested, are generally more liable to Distempers in the Lungs than others. An infinite Number of other Examples may be brought to prove it. The natural Defect of the Parts may possibly have an Influence upon the Fluids with which they are supplied, and produce an Alteration in them ; and, in some Families, are frequently hereditary. A Defect in the Fluids may likewise reciprocally have an Influence upon the Parts, and occasion their Destruction.

Every one is sensible, that the different Alterations of the Fluids produce Distempers absolutely different ; but the same Defect that is the Source of the Distemper, may declare itself by various Symptoms, and changing their Figure, like *Proteus*, create Diseases which have no Resemblance to each other, according to the Structure and Use of the Parts upon which it happens : Thus a Venereàl

Virus

Virus occasions Ulcers, Abscesses, and Exostoses, &c. thus a tetterous Humour leaving the Skin, shall create an Obstruction in some of the *Viscera*. Thus, those who have been gouty, cease to be so, and become subject to the Gravel; and these Defects in the Fluids are sometimes hereditary.

Two Things render these Diseases difficult to cure. First, it is not easily known what Kind of Alteration the Fluids have undergone. Secondly, the Deposition of this vitiated Humour upon the Parts is rarely critical, but generally symptomatical. We shall see an Instance of this in the following Observation.

In 1715, a Lady about thirty Years of Age, of a replete Habit of Body, and seemingly in good Health, was attacked with a dry Cough, that had the Appearance of the Beginning of a Cold. This Cough threatening an Inflammation, the Patient was bled several Times, and prescribed a proper Regimen of Diet: But, notwithstanding these Precautions, the Cough continued the whole Winter. She was put into a Course of Asses Milk in the Spring, which seemed at first to relieve her, but did not perform a perfect Cure: She entered into the same Course in Autumn, which was attended with no better Success; and in the beginning of the Winter, she perceived a little Gravel in what she expectorated, white and hard, being about the Bigness of Pins Heads. It will be necessary to remark that the Discharge of this Gravel was preceded by a violent and tedious Fit of Coughing, and that she sometimes spit Streaks of Blood, which made us conjecture that it came at some Distance. The bloody Streaks in the Expectations, being the Consequence of some Excoriations, occasioned by the Gravel in its Endeavour to be discharged, kept us always upon our Guard against

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the Inflammation; therefore, from Time to Time, we drew away a little Blood.

For the Space of four or five Years, that the Cough changed only in a greater or lesser Degree, being sometimes violent and frequent, and sometimes less, the Lady so accustomed herself to it, as not to regard it; and the more, because she was not emaciated, slept well, and had a good Appetite: Besides, she was delivered of two healthy Children during this Time. At length, in the Year 1720, the Cough was quieted, and the Lady thought herself perfectly recovered; but at two Months End from this Calm, an Inflammation appeared upon the Middle and external Part of the left Leg, near the Edge of the *Tibia*, which terminated in an Abscess of the *Membrana Adiposa*. I opened the Tumour, and found nothing extraordinary, the Wound healing in five Weeks.

The Cough returned four Months after, attended with a Discharge of Gravel; but the Lady being accustomed to it, gave no Attention to this Disorder, and concealed it from me for several Months. At length an inflammatory Tumour appeared at the superior Insertion of the *Musculi Recti*, both above and below the *Cartilago Xyphoides*. Two Bleedings, with the emollient repelling Cataplasms I applied, would not prevent its coming to Suppuration; however, without causing much Pain, and in four or five Days, was ready to be opened.

I found my Patient not so willing to submit to this Operation, as she had been with regard to the Abscess formed in the Leg. I represented to her in vain, that by a long Detention of *Pus*, it would seize the *Membrana Adiposa*, and form *Sinus's*, that would oblige us to extend the Dilatation: She proposed to defer the Operation till the next Day;
and

and when I returned to her House, was astonished to find, that, to avoid the Incision Knife, she was gone to her Country-Seat seven Leagues from *Paris*, and therefore did not see her for some Time. Here she met with some of those devout empirical Females, who soon gained her Esteem, by not mentioning an Operation, and applied their own Plaisters, which have always the Quality of curing all Manner of Distempers.

In four Months Time the Lady returned to *Paris*, and desired me to examine the Tumour, when I found two Fistula's, one upon the *Cartilago Xiphoides*, exactly in the Middle of it, and the other three Fingers Breadth below it, a little on the right Side. A considerable Quantity of *Pus* was discharged by these two Orifices, and the Inflammation generally attending Fistula's, where the *Simus's* are numerous, rendered the Evacuation of it more free, sometimes through one Orifice, and sometimes through the other, so that one evacuated more when the other discharged less; the Matter was sometimes sanious, and sometimes thick.

In a few Days the Patient permitted me to introduce a Probe, always keeping her Hand ready to check mine, should I put her to the least Pain; and it was only upon this Condition that she suffered me to do it.

The *Simus* of the upper Fistula ascended obliquely from the left Side to the Right, and seemed to extend to the Interval between the sixth and seventh of the true Ribs, reckoning from above, in that Part where they are joined to the *Sternum*; but not being able to introduce the Probe above two thirds of an Inch, I could not discover the Fountain of the *Pus* at this Time. I introduced my Probe into the lower Fistula, which I had bent on Account

of its Obliquity ; for by forcing it between the Cartilages of the false Ribs, I found more Matter was discharged. The Crookedness of the Probe directed me to the Surface of this Cartilage, which was a considerable Depth, by Reason of the Thickness of the *Pannicula Adiposa*, and the Inflation of the Parts ; and I could examine no farther, on Account of the Obliquity of the *Sinus*.

The Patient consented to the Proposition I made, of introducing a Leaden *Canula* into this *Sinus*, which I shaped agreeable to its Obliquity, and was well pleased to observe the *Pus* more freely discharged by this *Canula*, than it was before, which kept the Sides of the Fistula at a greater Distance from each other. She continued the Use of the *Canula*, and returned into the Country.

When she came to *Paris*, a few Months after, I examined the Wound again, and found the Inflammation diminished. As I could not prevail upon her to submit to such Injections as I thought proper, to evacuate the *Pus* with greater Facility, I imagined that the Opinion of several Surgeons might determine her to consent to it. Among many able ones I proposed, Mr. *Petit* was resolved upon. We examined into the Case together, and found the Patient averse to all manner of Incisions. She submitted, however, to the Injections, which penetrating to the Bottom of the *Sinus's*, might probably deterge them.

The two first Injections did not proceed far, and came out again mixed with a little *Pus* ; but the third, which I injected with more Force, penetrated even to the Lungs, and created a violent Cough. This was undoubtedly true, since the Patient spit up a Part of it, which we could distinguish both by the Scent and Colour.

From hence we concluded, that the Source of the *Pus* was in the Lungs. I continued the Injections for the Space of a Month or six Weeks; and as the Cough was very troublesome to the Patient, when the Injection entered the Lungs, I contented myself to clear the *Sinus* with it, without forcing it in. The Lady returned into the Country, where she continued the same Dressings, pursuing the Injections.

When the Lady came to *Paris*, she acquainted me that she had sometimes had a Fit of a Diurnal Fever, preceded by Shiverings; and I found three Orifices more, on the right Side of the lower Fistula. I compared the Number of Fistula's in this Part with those in *Perinaeo*, all whereof terminated in one, through which the Urine passed, quitting its natural Channel.

The Terror of Operations, added to the Idea the Lady had, that I should strictly examine into the Nature of her Case after her Death, in which I was not thoroughly satisfied at present, determined her to remain in the Country, where she died of a *Diarrhæa* in ten Months.

I was acquainted with her Death too late to satisfy my Curiosity; in which her Family was even concerned, as one of the Lady's Daughters has since expectorated Gravel in a Fit of Coughing, like that of her Mother's.

My Design of opening the Body being thus prevented, let us endeavour to supply that Defect, and penetrate into the Nature of the Disease, by the Symptoms attending it from the Beginning to the End.

The Dryness and Obstinacy of the Cough, notwithstanding the gentle Pectorals at first prescribed, gave me room to imagine, that the Glands of the Lungs were infiltrated by a vitiated Humour

in the Blood ; and if saline Bodies are more subject to petrify than others, the Cause of her violent Cough may be accounted for by the Quality of the Humour, independent of its Thickness, which gradually occasions these stony Concretions.

The Tumour appearing toward the *Musculi Recti*, ought not to be looked upon as an Abscess formed in that Place, but as a *Sinus* occasioned by the *Pus*, originally formed in the Lungs : This Abscess in the Lungs might be suddenly occasioned, as well as that upon the Leg ; it might also be the Consequence of an Excoriation in the Lungs, by the Exit of the Gravel, and Inflammation that must consequently attend it. Gravel lodged in the Kidneys, which are not in a continual Motion, as the Lungs, frequently occasions Ulcers and Impostumations : Supposing then, the Adhesion of the Lungs to the *Pleura*, to be either natural or accidental, in that Part lining the *Diaphragma*, I see no Impossibility of its being perforated by the *Pus*, when it is collected at the lower Part of the Lungs, where it adheres to the *Pleura*. We learn from Anatomy, that the *Diaphragma*, beside its Adherence to the false Ribs, is fixed by an infinite Number of carnous Fibres, to the transverse Muscles of the lower Belly. From hence I conceive, that the *Pus* having penetrated the *Pleura*, expanded by Means of this Continuity of Fibres, under the *Internus Obliquus* ; and afterwards, by separating the fleshy Fibres of this Muscle, from those of the *Obliquus Externus*, spread itself into the Cells of the *Pannicula Adiposa*.

Had not the Patient been fearful of a Chirurgical Operation, we should have enlarged the Wounds, and brought the two Fistula's into one ; and instead of a crooked Passage, through which the Matter was with Difficulty discharged, we should have
made

made a free and easy Way at least to the *Diaphragma*. Therefore being thoroughly persuaded, that the Shiverings, and the frequent Paroxysms of the Fever, and even the Diarrhæa, were only the Consequence of different Collections of *Pus*; one Part whereof being discharged with Difficulty, was often absorbed by the Blood Vessels, which hastened the Death of the Patient.

It appears from the Account of the Lady's Disease, that her Blood was loaded with a bad Leven, which Nature endeavoured to throw off. Would an Issue upon the Leg, where the Abscess was formed, have seconded these Intentions? And would that Evacuation have been sufficient? I doubt it, for two Reasons. First, daily Experience teaches us, that Issues are rarely serviceable in Adults. The *Spaniards*, who generally have them, are not less subject than ourselves to all manner of Diseases. Secondly, Nature had a favourable Opportunity to preserve a Drain, by the Incision I had made on the Leg; and would have done it in despite of us, as it sometimes happens, and the Abscess would never have healed, if the vitiated Humour of the Blood had continued to flow into this Part, as it had done at first: But the sudden and expeditious Cure, proves that this was not the Case; from whence I conclude, that an Issue would have been altogether useless.



OBSERV. XXXVI.

Of a critical Impostumation under the Musculus Dorsalis major.

IN the Month of *September*, 1723, my Coachman, who was about twenty-five Years of Age, and of a tolerable Habit of Body, was suddenly seized with a very acute Disorder. The Day it began, he performed his Morning's Work according to Custom, without any Complaint; and as he was going to Dinner, was attacked with a violent Pain in his Head. He rose from Table without eating, and went to take a Walk. I bled him copiously, and ordered him to continue in the same Regimen he had began.

In the Night he felt an acute Pain under the right Armpit, tho' nothing appeared externally. In the Morning I found his Blood of a vivid Colour, without much *Serum*; and his Fever, with the Pain in his Head, very much augmented, and therefore ordered him to bleed a second Time. He was bled a third Time at Noon, and a fourth in the Evening, finding the Fever and Pain in his Head the same; but his Blood was not so very florid the last Time, and formed a sily Substance in the Porringer. He had Plenty of Clysters administered, with Decoctions suitable to the Occasion; and I prescribed him the Juice of *Borrage*, *Bugloss*, *Charville*, and *Dandilyon*, a Glass of it to be taken every third Hour. The third Day, in the Morning,

ing, the Fever still increased, and the Pain under his Armpit. Upon Examination, I found a little Hardness in the Glands, but no Redness upon the Skin: Then I prescribed emollient Cataplasms to be often renewed, and ordered him to be bled a fifth Time. In the Evening, the Fever flying to his Head, threw the Patient into a Sort of *Delirium*, which obliged me to bleed him on the Foot. This Bleeding relieved his Head, but the Pain under his Armpit extended itself to the lateral Part of the *Thorax* on the same Side, and a little Swelling appeared upon that Side on the fifth Day. I found the Skin of a reddish Colour, and when I pressed upon the Tumour with my Finger, the Impression remained; then I applied suppurating Cataplasms to promote the Maturation.

During the first eight Days, there was no Alteration, either in the Distemper, or the Tumour; and I could not perceive the least Fluctuation, notwithstanding the Arm, Leg, and the Foot on that Side became *œdematous*; a Symptom that continued till the *Pus* was formed and evacuated.

The Fever was every Day intercepted by Shiverings, and at length, on the eighth, I thought I felt a deep Fluctuation in the Tumour; but in the Evening this glimmering Hope vanished, and the Tumour was half diminished. At this Time the Fever raged more violently, and became stronger than before; a Difficulty in Breathing, with an excessive Cough supervened, which obliged me to bleed him again copiously on the Arm, by which Means the *Dyspnœa* was somewhat abated.

The Disorder in his Head returned the ninth, which being relieved by a Bleeding on the Foot, I gave him an Emetick on the tenth. This procured a large Evacuation, without stopping the Course of the Fever or the Cough. Now I thought
it

it time to stimulate the Motion of the Blood, that Nature might make an Effort, and throw the Humour externally, which had been absorbed in the Circulation; from whence I apprehended a Deposition of the same Humour might be made upon one of the *Viscera*. To this End I gave him a Glass of generous Wine, with a Drachm of *Theriaca*, and twenty-four Grains of *Pulv. è Chel. simp.* which produced a plentiful Sweat, and relieved the Patient. The next Day, being the 11th of his Distemper, I found the Tumour more round and painful: I waited, in Hopes that it would advance; but it continued four Days in the same Condition. The Fever at this Time became regular, and declared itself a double *Tertian*, exasperated every Day at the same Hour with a Shivering; and the Pain in his Side increasing in a few Days, I found a deep Fluctuation in the Tumour, through the *Œdema* that had subsisted during the whole Course of the Distemper.

Now I thought it improper to defer opening the Tumour any longer, and desired Mr. *Petit* to see the Patient; who, upon examining the Tumour, tho' the Fluctuation was not very distinct, was of my Opinion, upon reflecting that the purulent Sanies infiltrating the Tumour, required our Attention as much as the *Pus* collected, if there was any contained in it; and that every Vesicle of the *Pannicula Adiposa*, and of the Cellular Texture uniting in those Parts, were so many Abscesses to be emptied.

The Dressing being prepared, I desired an Assistant Surgeon to press with both his Hands, one on the anterior Side of the *Thorax* upon the Pectoral Muscle, and the other upon the posterior Part, in order to confine the *Pus* to a fixed Point. Then I made myself certain of the Space the Matter might take up, which was nearly from the fifth of the
true

true Ribs, reckoning from above, to the fourth of the false. I made an Incision with a strait Bistoury through the Skin and *Membrana Adiposa*, according to the Rectitude of the Fibres, beginning four Fingers Breadth below the Armpit, a little posteriorly, and finishing six Fingers Breadth below. Nothing but a large Quantity of purulent *Serum* was discharged by this Aperture, with which the Parts were infiltrated, and proceeded from them like Water from a Sponge that is pressed. When I had made this Incision, I found that I had reached to the thick Part of the *Dorsalis major*, a little below, and on one Side of the inferior Angle of the *Scapula*. I divided this muscular Part with my Bistoury, finishing the Incision towards the posterior Insertion of the *Serratus major*.

By this Means I discovered a *Vacuum* upon the intercostal Muscles, from whence about a Spoonful of serous Matter was discharged, and then dressed the Wound according to Art.

Between the first and second Dressing, the Compresses were inundated with such a Profusion of *Serum*, that it wetted the Bed ; and thus it continued during the four first Dressings. The Circumference of the Wound being now disgorged, the third Day after this Operation, I discovered a *Sinus* at the inferior Part of the Wound, a little posteriorly, which I opened.

On the fifth, at Two o'Clock in the Morning, the Patient was seized with so violent a Cough, that I was called at Four, with News, that my Coachman was dying. I went to see him, and it was with Difficulty that he was capable of telling me, that his only Complaint was a continual Inclination to cough. Reflecting a Moment upon the Cause of this Cough, I presumed to think that the *Pus* formed under the *Dorsalis major*,
having

having occasioned so large an Infiltration above that Muscle, notwithstanding its Thickness, that the like Infiltration might happen through the intercostal Muscles, between them and the *Pleura*, and by Proximity to the Lungs, which perhaps were adherent.

I was in Suspense whether I should bleed or purge the Patient: As the first might prevent a Rupture of the Vessels that might possibly happen by the Violence of coughing; so the latter, by occasioning a Revulsion, might evacuate a Part of that Serosity wherewith the Parts were infiltrated, and which Nature wanted to discharge: I made Choice of the latter, and ordered the Patient to take three Doses of a purging Potion every other Hour, composed of *Manna*, *Cassia*, and vegetal Salt. The Cough abated after the first Evacuation, and diminished gradually with such Success, that at Four o'Clock in the Afternoon it intirely ceased.

Then the Fever considerably decreased, and the Wound furnishing a laudable *Pus*, it proceeded happily till he was perfectly recovered, which was in about six Weeks Time. A slight Swelling remained upon the Legs; but this Accident was soon calmed by the Administration of a few Purges.

R E M A R K.

We ought to make a proper Distinction between an *Œdema* and an *œdematous Pblegmon*. An *Œdema* is not attended with Pain, neither is it usually accompanied with a Fever: But an *œdematous Pblegmon* is always painful, and attended with a Fever.

In critical Abscesses, you must discharge the *Pus* as soon as you perceive the least Collection; for

Want

Want whereof a Reflux is always to be feared, as it happened in this Patient's Case, on the eighth Day.

In an *œdematous Phlegmon*, the Fluid infiltrating the Parts requires our Attention, as much as the *Pus* collected ; it ought to be evacuated by an Operation ; and, suppose, even that there is no Collection, the Operation becomes no less necessary ; because each Vesicle ought to be looked upon as an Abscess, that requires to be opened.

All the Vesicles indeed containing *Pus*, are not opened by the Incision made ; but are not less emptied, by Reason of their Communication one with the other.



OBSERV. XXXVII.

Of a Wound in the Thorax, attended with an Empysema.

IT is well known, that an *Empysema* is a flatulent Tumour, formed by an Inflation of the Vesicles of the *Pannicula Adiposa*, that are filled with Air. This Accident is common to Wounds in the *Thorax*, when they penetrate into the Cavity, and the external Aperture is small or oblique ; it has appeared also in some Wounds that were judged not to penetrate. This is an Accident that requires a speedy Remedy to prevent its Course, if possible, for Want whereof the Inflation will spread over the whole Body.

On

On the 8th of *June*, 1729, a Mason, twenty Years of Age, was brought to *La Charité*, who had fallen from a Scaffold fifty Foot high. I found a Fracture on the inferior Part of the left Thigh, and a Wound upon the *Thorax*. I began by reducing the Fracture, to which I applied a suitable Bandage. Then I examined the Wound, which was towards the sixth of the true Ribs, two Fingers Breadth beneath the right Breast; but the Patient could not inform me with what Instrument it was made, altho' it was large enough to admit of my Finger. I thrust a Probe into the Wound, and found a *Sinus* that extended upwards, about four Fingers Breadth from the Orifice of the Wound, and passed under the Pectoral Muscle. Moreover, there was an *Empysēma* an Inch in Thickness, which covered all the Fore Part of the Chest.

By the acute Pain the Patient felt at the Bottom of the Wound, by the Difficulty in Respiration, and the *Empysēma*, I was convinced that the Intercostal Muscles and the *Pleura* had suffered. So far from thinking to dilate the Wound already, I endeavoured to contract the Parts, to prevent the *Empysēma* from spreading, and therefore dressed it only with *Linimentum Arcaei*; and to prevent the Increase of the *Empysēma*, I applied a Compress of the Bigness of a Crown dipped in Brandy, upon that Part of the Skin where the Intercostal Muscles were pierced; this was sustained by other Compresses, and a proper Bandage. Farther, to prevent the Inflammation, I ordered the Patient to be bled four Times in sixteen Hours.

The Compression I had made with this small Compress answered my Intention, finding the *Empysēma* entirely dissipated the next Day; however, I did not yet remove the contentive Compress.

The Patient was bled twice more, on account of a Spitting of Blood that supervened, attended with a Fever, which was likewise repeated the third and fourth Days.

I imagined, that by this Time the Aperture in the *Thorax* might be closed, and that it was now proper to dilate the external Wound ; which was done accordingly. The Symptoms soon ceased after this Operation, and the Digestion was copious and laudable.

I don't mention the Regimen of Life prescribed, which was very severe, nor the Pectoral Ptilans properly administered ; the Wound becoming a simple one, was healed in a Month's Time, and the Patient remained in the Hospital only till he recovered of the Fracture in his Thigh.

We may remark in this Observation, what we may see in others ; which is, the Advantage we reap from early Bleedings, to prevent the Progress of the Inflammation.



O B S E R V. XXXVIII.

Of a Wound in the Thorax by a Sword.

IN deep Wounds, the Accident most to be feared after the Hæmorrhage, is an Inflammation. It is contrary to the first Intention, which is the Re-union of the Parts ; it occasions Suppurations and Abscesses ; and lastly, often extends to the neighbouring Parts, becoming the Source of infinite

nite Disorders : Moreover, we may venture to affirm, that no Wound is incurable, when unattended either by an Hæmorrhage, or an Inflammation.

The most certain Method of preventing Inflammations, and to check their progress, is by copious Bleedings, often repeated ; but always in proportion to the Strength of the Patient, to the Violence of the Symptoms, and to the Nature of the Parts affected, which are more or less liable to be inflamed. I shall give you an Instance of this in the subsequent Observation.

On the 27th of *April*, 1728, a Traveller was brought to *La Charité* in the Evening, who, a few Hours before, had received a Thrust with a Sword on the left Side of the *Thorax*, two Fingers Breadth below the Nipple. I introduced a Probe, which entered obliquely through the Intercostal Muscles, between the third and fourth of the true Ribs, near the *Sternum*, and stopp'd below in the *Mediastinum*. This was all I could discover with my Probe, and there was no *Empysema*.

The Patient had been once bled before he was brought to the Hospital, and I ordered him to be bled twice more in the Night. The next Day he was seized with a Fever, and Difficulty of Breathing, attended with a Lethargy, violent Head-ach, and an universal Weakness of the whole Body. I ordered the Wound to be plainly drest with the Green Balsam, not finding a proper Place to make a Dilatation to be of any Advantage. The Patient was twice bled the next Day, and a strict Regimen and Diet prescribed him.

Notwithstanding this, the Symptoms still subsisted ; and tho' the Patient was bled again the third, fourth, fifth, sixth, seventh, and eighth Day, being of a Plethorick Habit of Body, the Symptoms did not abate ; the Difficulty of Breathing

ing was considerable, which might give Reason to suspect a Collection of *Pus* in the *Thorax*; but the Inflammation was sufficient to produce all these Symptoms: Moreover, the Difficulty in Breathing was equal, let the Patient place himself in what Attitude he pleas'd, lying as easy on one Side as the other; and complained only of a Weight upon the *Sternum*, as the Cause of the Oppression.

On the eighth Day, at Night, the Patient bled at the Nose, which induced me, fearing a *Delirium*, to bleed him on the Foot: This bleeding seemed to be of little Service, making no Alteration in the Symptoms: The next Morning, in Consultation with the Physician of the Hospital, I proposed a second, to which he consented. The Symptoms still subsisting, and even sensibly increasing, we prescribed a third, and a fourth; after this last Bleeding, the Symptoms began a little to abate, and the next Day the Patient was infinitely better, and perfectly recovered the 15th Day. The external Wound was of so little Consequence, that it wanted only to be cicatrized.

R E M A R K S.

To what can we attribute all the supervening Symptoms, unless it be to an Inflammation of the *Pleura* and *Mediastinum*? Since the Oppression and Fever caused the first, was not this sufficient to occasion all the rest, especially considering the Plethorick Habit of the Patient at the Time he was wounded?

Can there be any Remedy more efficacious and expeditious, than frequent Bleedings in the Beginning? By this Means, both the general Plethory of the whole Body, and that peculiar to the Part affected, are diminished; by this Means the

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Parts are no more distended by too great a Weight of Fluids, and therefore recover their natural Elasticity ; which Elasticity accelerates the Circulation through those Parts where it was checked before, and is even capable of removing many slight Obstructions.



O B S E R V. XXXIX.

Of a Wound in the Thorax by a Knife.

THIS Observation proves, among many others, the Necessity of Bleeding where an Inflammation is to be feared, as well as in those where it already appears.

On the 12th of *August*, 1728, a Soldier of the Guards was brought to the Hospital about six in the Evening, who had received a Wound by a Knife on the Left Side of the *Thorax*, between the third and fourth of the false Ribs, reckoning from below upwards.

I found a Difficulty, at first, of introducing my Probe, and discovering the Direction of the Wound ; but at length I found the Passage : The Knife passed obliquely downward, tending towards the posterior Parts, and my Probe entering between the Ribs, penetrated a Finger's Breadth beyond them. The Patient had been twice bled before he was sent to the Hospital ; though I was thoroughly persuaded that the Wound pierced into the Cavity. Altho' there was no *Empysema*, I endeavoured to prevent that Accident, by dilating the external Orifice, from

from whence nothing but a little Blood was discharged. The Patient felt a very acute Pain at the Circumference of the Wound, and breathed with some Difficulty ; for which Reason I ordered him to be thrice bled before Morning, and then he seemed to be relieved.

I dressed him the second Time with the common Digestive, and he passed that Morning tolerably easy, but was very much oppressed in the Afternoon ; upon which Account I ordered him to be bled a sixth Time ; and the Symptoms increasing, he was bled a seventh. The Difficulty in Respiration was so very considerable, besides an acute Pain he felt at the Extremity of the false Ribs, near the *Diaphragma*, that he could hardly remain in the same Situation a Quarter of an Hour.

The Bleedings were repeated Day and Night, till he had been bled sixteen Times, and the Wound was dry during the whole Time. The Inflammation, from being confined to a particular Part the first Day, became general afterwards, extending itself over the whole Chest, and even the *Regio Epigastrica*, with a fixed Pain towards the *Cartilago Xiphoides*. He was attacked besides with a violent Cough, or rather a continual Inclination to cough, which was prevented by the Pain. The little he expectorated was thick, and of a yellow Colour.

As soon as the Pain began in the *Epigastrick* Region, I made use of emollient Fomentations, which were frequently applied to the Parts affected. All the Symptoms subsisted till the seventeenth Day from the Wound ; but at length the Inflammation diminished, together with those Symptoms it produced, and the Wound came to a good Digestion. I added a little green Balsam to the Digestive, which being more liquid, spread itself to

the Bottom of the Wound. The twentieth the Patient was attacked with a dry Cough, which was moderated in less than two Days, by the Use of *Sperma Ceti*; and the twenty-sixth he began to rise out of his Bed, and was perfectly recovered on the 3d of *October*.



O B S E R V. XL.

Of an Aneurisma in the Trunk of the Aorta.

AT the End of *June*, 1726, Mr. *Verdier*, an eminent Surgeon, and Royal Demonstrator in Anatomy, proposed I should attend him at the Opening a Body. And, as I believe that we ought to neglect nothing in a Profession so useful to Mankind, and that we may reap some Instruction from the most minute Case, I accepted of his Proposition.

A Distiller died the Evening before of a monstrous *Aneurisma*, that manifested itself above the *Sternum*, under the *Trachea Arteria*; which was the Subject of our present Enquiry. During the Time that we waited for many more, who were to be present at this Operation, we had a Relation of the History of his Distemper, which was recited in the Manner following.

In the Year 1722, the Deceased struggling with a Woman, and making an Effort to raise her from the Ground, he instantly felt an acute Pain, at the Articulation of the *Clavicula* with the *Sternum*. He
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immediately ceased toying with her, and the Pain somewhat abated ; it was gentle for a Week, but afterwards increased ; he was bled, which relieved him, tho' the Pain did not intirely cease ; and this alternate Pain made him look upon his Case as rheumatick.

Ten Weeks after, he perceived a small Tumour above the *Sternum*, between the two Extremities of the *Claviculae* ; he shewed this Tumour to an Empirick, who immediately declared it to be a Venereal Symptom. You will not be astonished at this Determination, when I inform you that he sold a Ptisan for the Cure of this Distemper : Upon the very Term Venereal, the Empirick lost his Patient's good Opinion ; who perceiving only a slight Pain, took his Diversion several Months after. The Tumour and the Pain always perplexing him a little, he used several Remedies, of which they could give us no Account ; it was not a regular Course of Medicines, but all such as different People pleased to prescribe, when he, in his own Judgment, thought them useful in his Distemper.

During this Time, the Pain extended to both Shoulders, and the Patient became subject to frequent Suffocations. The Tumour appeared as large as an Apple ; sometimes larger, at other Times smaller, in proportion to his Agitation : In some kind of Passions it considerably increased, and the Suffocations immediately followed. He could not lie upon the Left Side without Danger of being strangled, and feeling a violent Pain in that Part where he perceived it upon the Effort ; for which Reason he chose to sit, rather than to be in any other Posture.

As the Surgeon he constantly employed, proposed to relieve him only by Bleeding, he consulted several Empiricks ; one of whom, more impu-

dent than the rest, gained his Esteem by promising him a Cure. This Term, *I promise to cure you*, is a peremptory Reason to the Vulgar, and with the Patient stands instead of Skill and Capacity.

The Empirick made a Cataplasme, composed of the strongest Astringents, which he not only applied to the Tumour, but covered the whole Chest with it. This Cataplasme was often renewed for the Space of a Fortnight; at the End of which Time, the Tumour was observed to be increased above one Third. It seemed to extend over the *Sternum*, between the two Breasts; and the *Clavícula* starting under the Skin, in the Shape of a Fork, seemed to be separated from the *Sternum*. Upon this the Patient applied to several expert Surgeons, who only compassionated him, that he was afflicted with a Distemper which it was impossible to relieve. They advised him, notwithstanding, to bleed frequently, to prevent the Suffocations as much as possible, and to retard the Augmentation of the Tumour.

The Empirick continued his Visits, and perceiving the Inefficacy of his Cataplasms, omitted the Application of them, and substituted in their Stead a Plate of Lead, ten Inches in Length, and eight in Breadth, rubbed over with Quicksilver: The Weight of the Plate not being sufficient, it was to be supplied by Compression, and two People were employed to press it down by Force, with a Bandage in Form of the Figure Eight, passing it under the Armpits, and over the Shoulders, to be fastened with a Buckle behind. The Tumour continued, however, to increase; and not being capable of extending outwardly, by Reason of the Plate of Lead, it inwardly enlarged, and compressed the internal Parts to such a Degree, that the Patient could hardly swallow even a little Water.

Water. Hence, we may easily judge of the Pressure upon the *Trachea Arteria*, and of the Reason of his Suffocations. He felt frequent Throbbings or Shootings in the Tumour, and the Skin that covered it became *œdematous*. In short, he died four Years from the Beginning of his Distemper.

Mr. *Verdier*, a celebrated Anatomist, was desired to take the *Scalpel*, and open the Body. When the *Cutis* was carefully raised, we discovered the Muscles *Sterno-Mastoideus*, *Bronchick* and *Sterno-byoideus*, which were much larger than ordinary, but considerably extenuated.

When the Muscles were cut off, Part of the *Aneurismatick* Tumour appeared. Then he raised the *Sternum*, and took the Heart with its Vessels out of the *Thorax*, with both *Claviculae*, whose Extremities next the *Sternum* were engaged in the *Aneurisma*. The right was entire, but the left was broke in the Middle; that is to say, the Extremity which adhered to the *Aneurisma* was separated from that articulated with the *Acromion*. Then we had a full View of the Extent of the Tumour, such as I have described it, and which Mr. *Verdier* still preserves.

The *Aorta*, where it proceeds from the left Ventricle of the Heart, begins to be *Aneurismal*, and enlarges gradually to the Middle of the Bag, where it is near four Inches and an half Diameter; then it gradually decreases, till taking the Name of *Aorta descendens*, it resumes its natural Magnitude; the Curvation of the Tumour seems even to be lengthened in proportion as it enlarges, being seven Inches in Length. In the whole Dilatation of the Bag, the *Aorta* was at least three Times its natural Thickness, and the middle of the Dilatation of the Bag was raised as high as the superior Part of the *Sternum*.

The midst of the dilated Bag forms a Kind of Pocket, which is annexed to it, and contains a Quart of Liquor. This Pocket is about five or six Inches Diameter, and nine or ten in Circumference; and as the Basis is only five, it forms two *Aneurisma's*, one grafted upon the other. The Texture of it is not so thick as the *Aorta*. This Pocket formed the Tumour, which appearing, and pressing underneath the *Sternum*, occasioned the Atrophy of the Muscles before-mentioned, and fell down upon the anterior Part of the *Sternum*, between the Breasts, where they compressed it with a Plate of Lead, I spoke of before.

The Circumference of the internal Part of the Bag was lined with a mucous sily Matter, resembling such as appears in Pleurifies; which sily Matter was mixed with several Clods of Blood.

The internal Part of the Pocket, that was elevated in the middle Bag, was lined also with several carnos Fibres, ranged upon each other, of a red Colour, and tolerably hard; and in the middle of it were some Clods of Blood.

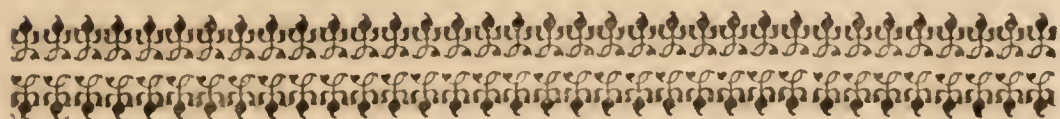
The Extremities of the *Claviculae* were lodged in this Pocket. I have observed before, that the Left is fractured in the Middle, out of the Pocket. The Extremity that was inclosed in it is carious, and separated into two Pieces by the *Caries*. That Portion of the *Clavicula* enters into the Pocket, near the Part where it adheres to the *Aorta*. The right *Clavicula* penetrates it three Fingers Breadth higher. A third of this *Clavicula* is lodged in the Pocket; and this inclosed Portion of it is carious, like the Left, and corroded by the *Caries*, as though the half of its Thickness had been taken off.

The right and left *Carotide Arteries*, and the left *Subclavian*, each of their natural Dimensions, proceed posteriorly from the dilated Bag, at the Place where it opens into the Pocket.

From this Observation, which is more curious than improving, we may, notwithstanding, deduce many useful Inferences. First, A Surgeon may make a certain Prognostick of Death in a parallel Case; and this Prognostick is useful to the Patient, as it apprizes him to consider of his spiritual and temporal Affairs.

Secondly, We are convinced by it of the Uselessness and Inefficacy of strong Compressions in large *Aneurisms*, that are partly internal: And this Compression, tho' imperfect, is always injurious to the Parts beneath; it harrasses the Patient, and often hastens his Death, by promoting an accidental Opening of the Tumour, which has sometimes happened.

Thirdly, It is easy to conclude, that nothing but frequent Bleedings can relieve the Patient, and prevent the sudden Augmentation of the Tumour, by lessening the Quantity of Blood in general.



OBSERV. XLI.

Of an Abscess under the Armpit.

THE Application of expulsive Compresses, being a reasonable Practice among Surgeons, whether it be to prevent Incisions, or whether in
such

such Cases where they cannot be made, or sufficiently extended, it will not be useless to determine in what Manner, and at what Time they ought to be applied, since it has been omitted by Authors. Therefore, altho' the Observation I am going to relate is nothing extraordinary, I shall, however, make a Chapter upon this Subject, for the sake of young Surgeons, in order to instruct them in two essential Circumstances, relating to this Application.

The twenty-fourth of *May*, 1728, a Man was sent to *La Charité*, who had a considerable *Pblegmon* under his Right Arm, extending to all the Fat under the Pectoral Muscle.

I prescribed emollient and maturing Cataplasms, because the Tumour seemed disposed to suppurate. These were continued to the third of *June*, and then the *Pus* being formed, I opened it with a Lancet from the Bottom upwards, not directly under the Armpit, but anteriorly, the *Pus* being more plainly felt in this Place than in any other, and the Skin considerably thinner. The Intervention of the Pectoral Muscle, which I must have divided in two, prevented me from extending the Incision very far, tho' the *Pus* came at a Distance from above. At length, to make a little more Room, and that I might dress the Wound commodiously, I took off a Part of the Lips with my Scissars. Then I thrust my Fore-finger into it upwards, to examine the Bottom of the Wound, and found a Cavity under the Pectoral Muscle, reaching to the *Clavicula*, the Hardness whereof I felt, altho' it was not bare.

I dressed the Wound for several Days with common Digestive, observing to introduce a flat Dossil, armed with the same, to the Bottom of the *Sinus*, which fortunately being above, the *Pus* did not stagnate; and in eight Days I dressed it with a Mundificative, and then left the Bottom to Nature.

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To assist her as much as possible, I mean, to keep the two Sides of the Bottom of the Wound together, I made use of an expulsive Compress, long and narrow. The first Time I applied it, was transversely under the *Clavicula*, that is, close to the Bone. The next Day I fixed a Compress of equal Length upon the same Place, but somewhat broader; and thus I gradually increased its Breadth every Day, leaving a free Drain for the Matter. The Quantity of *Pus* was very extraordinary, on Account of the Fat which had suffered, and was suppurated. By Means of this Contrivance, the *Sinus* seemed to be healed on the thirteenth Day, and then the Wound soon cicatrized by being dressed methodically.

R E M A R K.

If a Wound is attended with a *Sinus*, and you employ expulsive Compresses from the Beginning, they are not only insignificant, but even the contrary. The Flesh ought first to suppurate, and be well mundified, before it can unite.

If the Bottom of the *Sinus* is mundified, and you apply an expulsive Compress immediately, that covers the whole Extent of the *Sinus* you endeavour to reunite; it may so happen, that it shall press less upon the *Vacuum*, than upon the other Parts, and, in this Case, will contradict the Intention of the Re-union; therefore the Bottom ought to be compressed only by Degrees.

Care ought to be taken in applying the Bandage, not only to observe that the expulsive Compress is secured in its Place, but to avoid making a strong Compression below the Cavity, which may restrain the Evacuation of the *Pus*; and to secure it more firmly in the proper Place, it is absolutely necessary to fix it with an Agglutinative Plaister.



OF THE
SUPERIOR EXTREMITIES..

OBSERV. XLII.

Of a Cancerous Tumour upon the Shoulder.



WHEN Scirrhus Tumours become painful, they are characterised with the Denomination of Cancers, and require to be treated in the same Manner, in whatsoever Part of the Body they happen.

In the Year 1714, a Gentleman feeling a slight Pain upon the Point of his Shoulder, and reaching his Hand to it, perceived a small Tumour of the Bigness of a Pea, which increased in a Fortnight, and became exceeding painful.

I being required to attend him, upon Examination of the Tumour, found it of the Magnitude mentioned before, elevated about the sixth Part of an Inch above the Skin. It was of a Purple Colour, which extended the fourth of an Inch beyond the Circumference of the Tumour.

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When I had bled the Patient, I resolved to extirpate it. I hooked it with an Errhine, and divided the Skin with a Bistoury, about a Quarter of an Inch from the Redness, in one Part of the Circumference; then raising the Tumour, I separated it, cutting into the *Pannicula Adiposa*, which was very thick, the Patient being fat, and then finished the Extirpation. He suffered no more Pain, and by dressing it like a simple Wound, it was intirely healed in three Weeks.



OBSERV. XLIII.

Of a Caries attended with an Exostosis upon the superior Part of the Humerus, with an Amputation of the Arm in the Articulation.

I Met with this Observation, among many others my Father had preserved, which he explains in the following Terms.

The Gentleman's Distemper I am about to mention, began on the superior Part of the Arm under the *Musculus Deltoides*; the Pain had been always moderate, but the Cause unknown. The Tumour growing very considerable, the *Deltoid* was elevated by it, and much tumified, without the least Alteration in the Colour of the Skin. We imagined this to proceed from a thick *Lympha*, gradually coagulated; besides, we had some slender Suspicions of an *Aneurisma*. As the Tumour was exceeding hard, emollient Cataplasms were prescribed,

scribed, till he had the Opportunity of bathing in warm Water.

In the Interval, we perceived a slender Softness in the anterior Part of the Arm, near the Arm-pit, and another on the posterior Part, which occasioned us to change our Opinion. A Train of *Lapis Infernalis* was placed upon these two Parts; and the Eschar being divided, nothing issued from it but Blood, proceeding from a small Artery, which had been opened under the *Deltoides*, by a Splinter of Bone that had pricked it. Having introduced my Finger into the Orifice, I found no other Fluid, but discovered the *Humerus* bare from six Inches below the Head of it; moreover, it was carious, and exostofated, from the middle Part to the Neck, so that the Tumour of the *Deltoides* proceeded from hence.

After an Examination of the Distemper made by Messieurs *Mareschal*, Surgeon in Ordinary to his Majesty, *Arnaud*, *Aubert*, *Petit*, and myself, we dressed the Patient, and, in a private Consultation, agreed, that there was no other Method of curing him, and saving his Life, but the Amputation of the Arm; which could not be advantageously performed, unless it was taken off in the Articulation.

Both the Family and the Patient having consented to this Proposition, the Operation was deferred to the next Day. Then we had a second Consultation with other Gentlemen of the Faculty, viz. Messieurs *de la Peyronie*, *Lardy*, *Merry*, *Guerin*, and *Rufel*, who were all of the same Opinion.

When we had agreed upon the Manner in which the Operation was to be performed, Mr. *Arnaud* held the Arm, and Mr. *Petit* the Body.

I began by passing a strait Needle, threaded with a strong Thread, well waxed, passing the Point of
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it close to the Bone, from the anterior Part of the Arm to the posterior, as near the Armpit as possible ; with which Ligature I embraced the Vessels, all the Flesh, and the Skin that covers it. I placed a small Compress under the Knot, and tied it as fast as I could. I judged by the Pulse that the Vessels were secured ; then with a strait Knife I cut the Skin, with the *Musculus Deltoides*, transversely, to the very Articulation, from whence I took off all the Ligaments surrounding it.

The Articulation being discovered as much as I possibly could, and as much as was necessary, Mr. *Arnaud*, who held the Arm, forced the Head of the *Humerus* from its Articulation with the *Scapula*, by pressing it upwards, which afforded me Room to slide my Knife between the Bone and the Flesh ; I directed it from above downwards, always keeping the Edge inclining to the Bone, then gradually descending, I separated all that intervened the Edge of my Knife, till I came below that Part where I had made a Ligature of the Vessels : Afterwards I finished the Operation, by cutting through the remaining Part of the Flesh and the Skin.

This being done, as a large Piece of useless Flesh remained, I made a fresh Ligature with a crooked Needle, as high towards the Armpit as I possibly could, taking in Flesh enough at the same Time ; and then cut off the superfluous Flesh below, where the first was made, which was become useless by the second.

The Artery at the superior Part of the Arm furnished very little Blood ; and nothing more was wanting than dry Lint and astringent Powders to stop it.

I filled the Cavity of the *Scapula* with dry Lint, which I continued every Dressing. No Exfoliation

tion followed; the Wound healed with laudable Flesh; by Degrees the Ligatures fell off, the Skin was united, the Cicatrice formed, and the Patient perfectly recovered in less than ten Weeks; and in such a Manner, that it does not exceed the Breadth of an Inch.



O B S E R V. XLIV.

Of an Abscess in the Capsula surrounding the Humerus.

IF Wounds remain fistulous, the Fault is not always in the Distemper. There are indeed many Cases wherein the Structure of the Parts will not suffer a Surgeon to extend his Incisions sufficiently to discover the Bottom of them. But when this can be done without Danger, let us not be terrified at the Length of Incisions that are absolutely necessary, provided they are suitable to the Strength of the Patient.

The eighth of *December*, 1727, a Man was sent to *La Charité*, having a Fistula that discharged a large Quantity of *Serum*, in the Middle and anterior Part of the Arm, at the Insertion of the *Musculus Deltoides*. This Distemper had began fifteen Months before, by a Pain extending over the whole Shoulder, and, in a few Days, a Tumour, threatening an Impostumation, was formed at the Insertion of the *Deltoides*. This Tumour burst without any Operation, and the *Pus* seemed originally to spring from the Fat contained in that Part. A Surgeon
to

to whom he communicated his Case, had dilated the Orifice and dressed the Wound for a long Time without compleating the Cure. The Fistula soon contracted, but still continued to discharge a little Pus; and in this Condition the Patient was sent to *La Charité*.

I probed it, and found a *Sinus* that passed between the *Periosteum* and the *Deltoides*, which Muscle seemed to be swelled, and became painful.

To alleviate the Pain, and be thoroughly satisfied of the Nature of the Distemper, I prescribed emollient Cataplasms to be often repeated. In a few Days the Patient felt an acute Pain, not only at the Circumference of the *Sinus*, but over the whole Shoulder. I probed the Wound again, and was fortunate enough to introduce my Probe to the Head of the *Humerus*. Then I took a firm Resolution to open and trace the Distemper to its very Source. I introduced an hollow Probe to the Bottom, and by the Assistance of the Furrow in it, divided the Muscle in two, almost to the *Acromion*, above the *Capsula* embracing the Articulation. This being done, I discovered a *Sinus*, that extended on the left Hand towards the back Part of the Shoulder, which I opened, and did the same on the Side next the *Processus Coracoides*, where I found another *Sinus*, so that the three Incisions made the Figure of the Letter T. I took off the greatest Part of the two Angles, which contained most of the *Musculus Deltoides*, and by this Means discovered the whole *Capsula*, which was laid bare, and loosened from the *Deltoides* that covers it. The Blood preventing a thorough Examination, I dressed it in the common Method.

A few Hours after, I ordered the Dressing to be moistened with *Ol. Ros.* that the Hardness of it might not incommode the Patient, and removed

the first Dressing the next Day, taking off only what did not adhere too fast. The Patient had no Fever, and the Wound began to suppurate. At the second Dressing, the whole being easily removed, I had the Opportunity of examining the *Capsula*, in the midst whereof I perceived a black Spot of the Bigness of my Thumb Nail. I was sensible of the Depth of this Eschar, and proposed to procure a Separation of it as soon as possible, with a View to amputate the Arm in the Articulation, if I found the *Capsula* open, upon the Separation of the Eschar.

The Wound suppurated abundantly, the *Pus* was laudable, and the Spot disappearing at the fifth Dressing, I found the *Capsula* intire; but the Patient had a slight Fever, which ceased the same Day.

At this Time I perceived a *Sinus* at the superior and lateral Part of the Wound, which proceeded from the *Musculus Superspinalis*. This *Sinus* closed in four Days by Means of an expulsive Compress that pressed upon the Bottom of it, without which it must have been opened. The Remainder of the Time, the Wound was dressed like a simple Wound. A Fortnight after, the Patient felt an acute Pain in his Elbow and Arm. I observed, that the Weight of the Arm was the Occasion, the Sling to support it relaxing after each Dressing. This I remedied, by ordering the Patient to lie on the other Side, with his Arm supported by a Pillow, and he perfectly recovered in two Months.

R E M A R K S.

It is very probable, that the Disease in the *Capsula* originally produced the Pains, and a Suppuration happening upon it, the *Pus* had by its Weight
ran

ran under the *Deltoides*, and pierced the Skin, first affecting the Fat surrounding the Tendon; for which Reason I did not term that Tumour formed towards the Tendon of the *Deltoides*, an Abscess, looking upon it as a Collection of *Pus* flowing from the *Capsula*. If we had followed the Direction afforded by the *Pus* in the Beginning, the Patient would have been much sooner cured; and had I deferred opening the *Sinus*, and discovering the *Capsula*, the Eschar would undoubtedly have been deeper; and then the *Pus* piercing the *Capsula*, would have occasioned the Loss of the Arm, and perhaps the Death of the Patient.



OBSERV. XLV.

Of a Phlegmonick Erysipelas, attended with a symptomatick Impostumation.

IN the Month of *January*, 1726, a Man was brought to the Hospital, who had the Point of his Shoulder, Arm, and Fore-Arm, exceedingly swelled, by an *œdematous Erysipelas*. This Disease began three or four Years before, by an Obstruction in the Glands, under the Armpit, on the same Side: Sometimes the Obstruction diminished, and sometimes increased, but without preventing his going upon Business. In *November*, 1725, he felt an indolent Pain on the Shoulder, and imagined he had hurt himself when he was at Work. This Pain a little increasing, he believed it to be rheumatick, and neglected it. At length it became so considerable, that he was obliged to keep his Bed the

last of *December*, at which Time the *œdematous* Swelling and *Erysipelas* began. A Surgeon at *St. Denis*, where he lived, bled him four Times, which dissipated the *Erysipelas*; but the Swelling decreased very little, and perceiving that he still remained in the same Condition, was brought to *La Charité*.

I prescribed emollient and repelling Cataplasms; but in four or five Days the *Erysipelas* was converted into a *Phlegmon*, and suppurated at the superior and anterior Part of the Shoulder.

I opened it the 7th of *February*, and found the *Acromion* discoloured and carious, where it is articulated with the *Clavicula*. The Patient was dressed according to Art, and the Cataplasms continued both upon the Arm and Fore-Arm. I made use of an animated Digestive, and a Suppuration being very abundant at first, exceedingly reduced the Tumour upon the Point of the Shoulder; but the Swelling upon the Arm and Fore-Arm increased. Perceiving the Obstinacy of this Symptom, which refused to yield to the Remedies applied, and seemed to threaten a Mortification, I made (perhaps a little too late) some deep Incisions into the Fore-Arm, to discharge a Quantity of purulent Serosity, with which the *Cellulæ Adiposæ* were infiltrated. I made three, one upon the anterior Part, one upon the external, and one upon the posterior. The Swelling of the Limb was abated next Morning, and all the Wounds were dressed with the same Digestive as that upon the Shoulder. The Cataplasms being omitted, we applied Compresses dipped in Brandy, with which the Part was moistened often in a Day. No Applications could procure a good Digestion in the Wounds of the Fore-Arm, which were always dry; the ill Disposition of a Part that had been

I

distempered

distempered for three Years, added to the Patient's being attended with a slow Fever, not yet conquered, was a strong Indication, that a Defect in the Fluids might be the Cause. At length, he was seized with a violent Diarrhæa on the twentieth, which diminished his Strength very much, was attacked with Shiverings the twenty-third, and died the twenty-fifth.

R E M A R K.

Though deep Scarifications were fruitless in this Case, it proves nothing against the Method I proposed in some other Observations, where they were experienced to be very advantageous. Perhaps they might be performed too late, as I remarked before; for which Reason, some of the Fluid infiltrating the Parts, having Time to be absorbed by the Blood Vessels, this Absorption might occasion the Diarrhæa that was the Cause of his Death.



O B S E R V. XLVI.

Of a Wound on the Arm by a Musket-Shot.

A Diarrhæa is one of the worst Symptoms that can attend a Wound; and too great an Attention cannot be given towards discovering the Cause. It may be the Consequence of bad Dressings, as will appear from the following Observation.

Mr. *Therade*, an Engineer, aged twenty-two or twenty-three, was wounded in the Trenches at the

Siege of *Gironne*, in 1710, by a Musket-Shot, that broke his Left Arm. The Ball entered at the superior and external Part, where the *Deltoides* joins to the *Brachialis Externus*, and came out under the *Pectoral*, two Fingers Breadth below its Insertion with the *Humerus*, the Bone being fractured into several Pieces, the largest whereof closely adhered, and never separated.

The Wound was at first attended with very bad Symptoms; a Swelling, Fever, and a slight Putrefaction supervened, which I judged to proceed, in a great Measure, from the Dressings, as will appear by the Consequence of the Observation: The Symptoms at length ceased, and the Suppuration became laudable the ninth or tenth Day.

I was sent for the sixteenth, and found him in as good a Condition as I could have wished; the Digestion white, and of a proper Consistence; the Parts uninflated, yielding to the Touch, and beginning to unite; every Thing concurring at this Time to promise a speedy Cure. Finding Affairs in so favourable a Situation, I told the Patient, and his Relations, that we had Hopes of his Recovery in thirty or forty Days; and should it not happen in that Time, it would be his own Fault, or that of the Surgeons who dressed him.

The fifty-second Day from the Wound I was called again to visit him, and found him lean and emaciated, weak, and dispirited to such a Degree, that he was hardly able to speak, having had an excessive *Diarrhæa*, and a continued slow Fever, with an abundant Suppuration.

The Patient was dressed in my Presence, and I observed, when the Dressing came to be removed, that a large Number of Dossils were taken out of the Wound, which seemed more dilated than it was when I saw it before, on the sixteenth Day
after

after the Accident. The Flesh appeared of a good Colour however, but much wasted, soft, and without any Consistence, as tho' it was deprived of its alimentary Juices. I observed likewise, that this Portion of Bone, which had been separated from the Body of the whole by the Ball at first, and so firmly adhered to the *Periosteum* and the Flesh at that Time, that it could not be extracted; that this very Portion of Bone, I say, still remained in the same Place, which they endeavoured to extract at every Dressing; at length the Surgeon was confirmed in Opinion, and strenuously believed, that it was only this which prevented the Cure.

I was surprized at such Practice, and was of a contrary Opinion; judging, that the Accidents attending the Patient, rather proceeded from the Lint forced into the Wound, and the Irritation occasioned thereby, than from any other Cause.

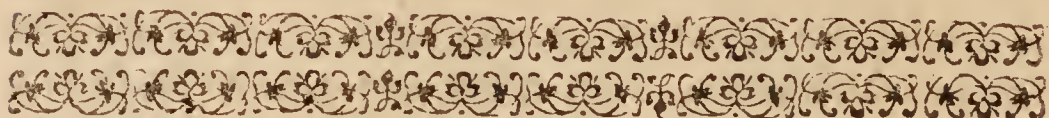
I had visited the Patient the sixteenth Day from his Wound, when I found him in so happy a Disposition, as to believe him recoverable in a short Time; and therefore concluding that the whole Disorder proceeded from no other Defect but that in the Dressing, I declared, that the only Method would be to change it, and resign the Care of the Wounds to Nature, covering them only with two Plaisters, and supporting the Arm in a proper Situation; that it would be easily perceived, in a few Days, whether this Method would answer or not; and that I had great Hopes, if the Patient had Strength sufficient for Nature to lend her Assistance, the only Way would be to suffer the Limb to repose. The Patient's Relations obliged the Surgeon to consent to this Proposition. Mr. *Bouvard*, Physician of the Army, who was called in at the same Time with myself, strengthened my Opinion, which was accordingly executed. He

rested much better the Night following; having slept a little, and the *Diarrhæa* was almost stopped.

This sudden Change gave him great Encouragement, and he became so much better, that in ten Days the Patient, who was a dying Man before, had Strength sufficient to be removed in a Litter to *Perpignan*, ten or twelve Leagues from *Gironne*.

R E M A R K.

It is easy to conclude, from the present Observation, that pressing of Lint into Wounds is of infinite Disadvantage in the Consequence, being often the Source of various unhappy Symptoms.



O B S E R V. XLVII.

Of a Fistula under the Armpit.

IT is a Maxim universally received by understanding Surgeons, that *Pus* ought not be allowed to stagnate in a Cavity, from whence it is with Difficulty evacuated, because it will form *Sinus's* on all Sides.

This Rule is not without Exception, there being some Cases wherein a Stagnation of *Pus* is useful; whether it be to resolve Callosities, as we perceive by some Observations; or whether it be to give the Surgeon a better Opportunity of making Contra-incisions, that are necessary. I shall take Notice of one of these Cases in the following Observation.

When I was first appointed senior Surgeon of *La Charité*, I met with a Patient in the Hospital who

who had an Abscess under the right Armpit, which had been opened some time before.

Tho' the Lips of the Wound were approached, it did not heal, and a little *Pus* issued from under the Extremity of the Pectoral Muscle. As this *Pus* was always bloody, the Colour of it made me more circumspect, and I would not venture to open the *Sinus* to its full Extent, lest I should open the *Arteria Axillaris*, or some considerable Branch of those supplying the Muscles. We very well know, that a small Branch of Artery proceeding from a main Trunk, furnishes abundance of Blood, and the Hæmorrhage is difficult to stop without a Ligature; and, in this Case, indeed it would have been difficult.

I placed expulsive Compresses upon the Part from whence the *Pus* proceeded; and having continued them for some Days, found them useless, on account of the Obliquity of the *Sinus* leading to the Source of the Matter; therefore I altered my Dressing, and, to afford a free Discharge to the *Pus*, and dress the Bottom, if possible, I made a Compression upon the Part from whence the *Pus* issued; and thus, by a Detention of the Matter, a Bag was formed that was more easily opened.

Two Days after, the Bag being filled, I opened it along the Extremity of the Pectoral Muscle, three Fingers Breadth from the first Incision. Then I thrust my Finger into the Wound, to be farther satisfied; and feeling no Pulsation of an Artery, I joined the old Wound to the new one. Besides, I cut off Part of the Lips, which ought always to be observed in Wounds under the Armpit, otherwise the Dressings are painful. The Wound proceeded happily, and was healed in three Weeks.



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HÆMORRHAGES.

These Reflections, and the three following Observations, were communicated to me by Mr. Leaulté, sworn Surgeon at Paris.

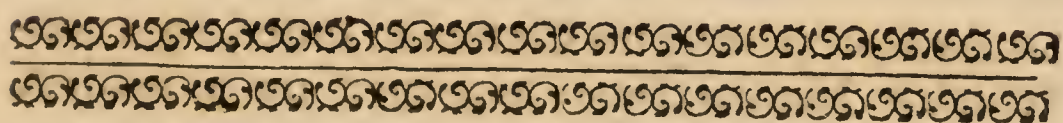


ET Hæmorrhages proceed from what Cause soever, they always strike a Terror into the Patient, alarm the Assistants, and even, sometimes, embarrass the most experienced Surgeon : Therefore he ought to be attentive, and consider the Consequence ; then acting according to the Knowledge he has of the Wound, and Situation of the Vessel that may have been opened, he ought to prevent his Patient from perishing by the Hæmorrhage, whether it subsists at first, or may be afterwards feared upon the Separation of an Eschar.

All the Methods we have of commanding the Blood, such as solid or liquid Stypticks, Compression, and Ligature, will not answer the Surgeon's Intention, but when they are immediately applied to the Orifice itself of the Vessel that is opened.

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Sometimes the Distance and Situation of the Aperture of the wounded Artery, prevent us from discovering the Orifice, and affording a speedy Relief; sometimes also, when the wounded Vessel is within our Reach, we cannot perceive the Aperture, the Blood being stopped without any Art used, or by stuffing the external Orifice of the Wound with Lint, seconded by the Situation of the Part, and a proper Bandage; which you will see in the three following Cases.



OBSERV. XLVIII.

Of a Wound in the Fore-Arm.

IN 1696, a Gentleman, in the Regiment of *Noailles*, received a Thrust with a Sword, which entered in the external Part of the Fore-Arm, sliding between the two Bones, and, in all Appearance, stopped at the inferior and internal Part of the Arm, without penetrating through it. He was dressed upon the Spot by the Mate of the Regiment, who stopped the Hæmorrhage with several Dossils of Lint, supported by a Bandage. I was called the next Day to see the wounded Person, and found his Hand and Fore-Arm in good Condition, a little *Ecchymosis* towards the Elbow, and the rest of the Parts moderately swelled. The Wound not having bled since, I thought it improper to remove the Dressings. The next Day I drew out all the Lint, which separated easily, leaving the two or three last Dossils behind; all Things being in good Order, no Hæmorrhage, but
only

only a Serosity distilling from the Wound, which had wetted the Dressing. Two Days after the Remainder of the Lint separated freely, and the *Pus* was of a good Consistence. On the seventh the Suppuration was well established, the Arm not swelled, and the *Ecchymosis* spreading to the *Epidermis*.

No Symptom of a wounded Artery appeared till on the seventh Day, in the Afternoon, the Patient being pressed to go backwards, went behind his Tent with his Arm in a Sling. When he had finished his Affair, he either straitened, or twisted his Arm, in putting his Clothes in order, for a considerable Hæmorrhage happened on a sudden, which occasioned the Mate to be called. He removed the Dressing, and not finding a Drop of Blood to flow, dressed the Patient as he had done before, and placed his Arm in a proper Situation. I was informed the next Day of what had happened, and therefore left on the Dressing, deferring the Removal of it to the Day following; the Arm being much swelled from the Elbow to the Armpit, and very hard.

I communicated this Case the same Day to Messieurs *Hautcaume* and *Baiffiere*, and declared my Opinion of the Wound, desiring they would pay him a Visit. The next Day I removed the Dressing in the Presence of these Gentlemen, which was inundated with a well-conditioned *Pus*, notwithstanding the Hæmorrhage the Evening before. I desired them to examine the Inside of the Arm and the Tumour, which extended from the Elbow to the Armpit, and made them sensible that the Artery was undoubtedly opened on the Inside; that a Clod of coagulated Blood hardening upon it, had stopped the Orifice in some particular Situation of the Arm; but that in another, the Clod being removed, afforded Room for the Blood

to discharge itself, which occasioned the Extravasion ; and that it was my Opinion no other Method could be taken, than to open the Tumour, or amputate the Arm. These Gentlemen thought it most proper to continue the same Dressing, to keep the Patient very quiet, and the Arm in a proper Situation.

The third Day, the Patient forgetting the Repose prescribed, was attacked with a fresh Hæmorrhage, and the Blood stopped again by placing the Arm in the former Situation. The Army decamping at this Time, the Gentleman was obliged to be sent to *Namure*, by whom I wrote to the Surgeon-Major, giving him my Opinion of the Nature of the Wound. A Disorder arising in the Patient's Head, with an Augmentation of the Swelling, made the Surgeon resolve to amputate the Arm the next Day after his Arrival in the Hospital, where he died in three Days.

The Surgeon wrote to me afterwards, and informed me, that, upon the Dissection of the Arm, he found the Artery opened above the internal *Condyle*, and that an hard Clod of Blood served as a Cork to the Aperture in the Artery, by pressing it against the Bone.



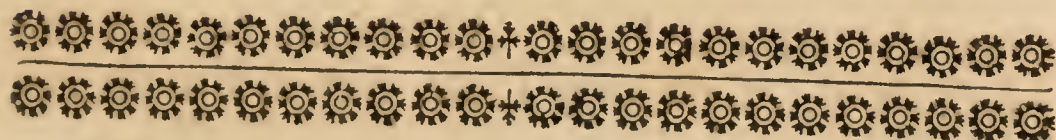
O B S E R V. XLIX.

Of a Gun-shot Wound in the Thigh.

THE following Campaign, a Man in the Company of Life-Guard to which I belong, received a Musket-shot in the anterior Part
of

of the Thigh, a little above the Middle. The Ball passed thro' posteriorly, nearly at the same Height, and in its Passage had affected the Bone and Vessels, tho' it passed between them both. I made such Incisions as I thought proper, both at the Entrance and Exit of the Ball, preserving a Communication between the two Wounds, and extracted some Part of his Clothes, Linen, and other extraneous Bodies. The Eschars separated at the usual Time, the posterior Wound healed, and the anterior seemed to proceed happily, till on the twenty-second, or twenty-third from the Wound, the Patient sitting in Bed, took a Pinch of Snuff, which producing a Sneeze, suddenly occasioned a considerable Hæmorrhage from the Wound. I removed the Dressings, and with them a large Quantity of clotted Blood; then I examined the Wound, and even tore it with my Finger, to discover from whence it proceeded. I held my Finger for some Time upon the Place, and perceiving the Blood not to flow, lodged a Dossil of Lint upon it, dipped in styptick Water, which I supported with proper Compresses, and a strait Bandage. I ordered the Patient to keep himself as quiet as possible, and to avoid using any kind of Effort. I waited three Days before I removed the Dressing, and when I had done it, found a very good Digestion, without any Appearance of Blood. On the third Day the Hæmorrhage was renewed by the same Cause. Then I dilated the Wound deeper, and stopped the Bleeding by Stypticks and gradual Compresses, well sustained by a Bandage; still recommending a strict Repose to the Patient. I made no Ligature of the Vessel, thinking it was only a small Branch of Artery, proceeding from the main Trunk, that supplied the *Musculus Vastus* and *Cruralis*.
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The Hæmorrhage being stopped, I waited till a firm Cicatrice was formed, before I suffered the Patient to move, and at length he perfectly recovered.



O B S E R V. L.

Of a Wound in the Arm with a Sword.

A Young Gentleman, Lieutenant of Foot, having received three Wounds with a Sword, in a Duel, in different Parts of the Body, was dressed by the Surgeon's Mate, and in eight or ten Days Time, the bad Symptoms disappearing, he thought himself in a Condition to return Home. I was desired to see him, and observed that the Wounds were almost healed; but I found the Right Arm exceedingly swelled from the Wrist to the Elbow, and from the Elbow to the Armpit. The Tumour was hard, much distended, and very black, by an *Ecchymosis* that extended from one End to the other. The Wound was situated at the superior Part of the Inside of the Arm, without passing through.

The Mate, who attended the Patient to this Time, informed me that he had stopped the Hæmorrhage with Difficulty, and that the Patient had lost a considerable Quantity of Blood.

He complained, indeed, of a violent Pain in the Palm of his Hand, which seemed to be as cold as Ice, and I could perceive no Pulsation at his Wrist.

Being

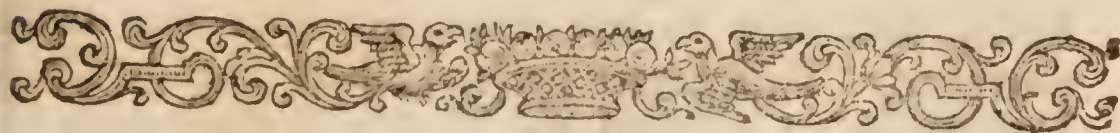
Being ordered to attend him, I applied myself to dissolve and mollify the Hardness and *Ecchymosis*, and to restore the Part to its natural Heat; restraining the violent Pulsation of the neighbouring Artery, from whence I thought the Blood proceeded; which, according to Appearance, was from the superior Part. At length, by different Methods used for a long Time, such as Emollients, Discutients, and Astringents, both in Fomentations and Cataplasms, a considerable Alteration appeared much to his Advantage; nothing remained painful to the Patient, except an Hardness up the Arm, which was only so when pressed upon, and extended from the internal *Condyle* to the Arm-pit. The natural Heat began to return into his Hand, and the Pains were less acute, and not so frequent, till the Patient accidentally moving his Arm in the Night, felt something extraordinary that disquieted him the whole Night; and indeed, when I came to dress him the next Morning, I found the Arm considerably swelled, and the Hardness upon it greatly augmented, being very painful when it was pressed. Messieurs *Petit*, *Baget*, and *Poncy*, saw the Patient under these various Circumstances, and feared, as well as myself, that after all our Care, and so many Changes from better to worse, we should at length be obliged to amputate the Arm; no other Operation being to be performed, as the Aperture of the Artery was placed so high. Nevertheless, by continuing and diversifying the Remedies, according to the different Occasions of the Distemper, the Tumour began to diminish again, and no fresh Extravasation happened. The Pulse began to return, the Hand recovered its Heat, and, by Degrees, its Nourishment. That Hand which seemed in an *Atrophy* before, and always cold, was at length restored,

stored, and to such a Degree, that neither Tumour or Hardness remained above the Bigness of my Thumb, on the superior and internal Part of the Arm.

At length I ordered a Bandage to be made with a strong Piece of Leather, surrounding a Part of the Arm, and secured by three Straps, strengthened according to the Judgment of the Patient. This Bandage sustained and supported a thick Compress upon the Tumour, which I obliged him to wear above six Months after his Recovery. In a Period of Time, the Arm and Hand received their proper Nutrition, increased in Strength, and performed their ordinary Functions; so that he was perfectly cured.

In the forty-eighth Observation we find that the Patient died, for want of performing the Operation in a proper Time. We see also in the forty-ninth, that a Surgeon ought not to be satisfied (altho' the Hæmorrhage is stopped) unless the Re-union of the Vessel, which had been opened before, was effectually compleated.

In short, it is evident by the present Observation, that we have some Reason to hope, in particular Circumstances, to cure a wounded Artery, without any Operation, and consequently preserve the Limb.



O B S E R V. LI.

Of a Caries on the Elbow.

CARIOUS Bones cannot be too early discovered, when the *Caries* threatens to invade the Joint; and the same Thing may be likewise

wife said of membranous or tendinous *Aponeuroses*, when they begin to suppurate.

On the 27th of *April*, 1728, a Man was brought to the Hospital who had a *Pblegmonick Erysipelas* upon the right Arm, extending from three Fingers Breadth above the Elbow, almost to the inferior Part of the lower Arm. I perceived two small Apertures, which passed obliquely to the *Olceranum*, one at the superior Part of the Tumour, and the other two Fingers Breadth below the Elbow.

I opened the two *Sinus's*, which tended both to the same Point, and introducing my Finger into the Wound, I separated a large Portion of the *Olceranum* that was carious and full of Holes. The Patient could give me no Information from whence I might form a Judgment, whether the distempered Bone caused the *Erysipelas* and Putrefaction of the *Aponeurosis* of the *Extensores* of the Arm, or whether it was the Distemper of the *Aponeurosis* that occasioned the *Caries*. But, as the *Olceranum* was Worm-eaten, it is reasonable to believe that this was the Origin of the Distemper.

I dressed the Patient methodically, and, to moderate the Inflammation upon the Fore-Arm, prescribed emollient and discutient Cataplasms, dressing the Wound with animated Digestive, applying a Pledget dipp'd in Brandy upon the Bone. After a few Dressings, I perceived some small Pieces of Bone, adhering to the *Aponeurosis* that was half putrefied. To separate these, and to promote the Exfoliation, I touched the Flesh and Bone with a Dossil dipped in Mercurial Water, dressing the rest of the Wound in the usual Manner. The Eschars fell off gradually, by the Assistance of a Pledget dipped in Spirit of Turpentine, the Use whereof was continued for some Days; and, in a Fortnight's Time, the Swelling and *Erysipelas* entirely disappeared.

peared. The Wound began now to appear in good Order, the Bone to be covered, and exfoliated insensibly. After this, nothing more remained to be done, than to conquer the Flesh, and cicatrize the Wound, which was performed in six Weeks.

R E M A R K S.

If I had retarded discovering the *Olceranum*, the greatest Part whereof was carious, the *Pus* would certainly have extended to the Joint in a few Days, the *Caries* sensibly increasing.

If I had not laid the *Aponeurosis* bare that was suppurated, the Inflammation would have extended lower upon the Fore-Arm, and the *Pus* dissecting the Muscles, would soon have spread throughout the whole Limb. The *Erysipelas*, which had already extended to the Wrist, gave Room to apprehend this Consequence. How often have we seen this Kind of *Erysipelas* fix upon the *Pannicula Adiposa*, and spread itself gradually under the Skin, and even in the Skin, till the whole *Pannicula Adiposa* has come to Suppuration?



O B S E R V. LII.

Of a Caries on the Elbow.

WHEN we make an Incision into *Aponeurotick* Parts, let us always remember to prevent or correct the Inflammation, by Bleedings

and emollient Cataplasms. These Remedies are both of infinite Consequence. Without this Precaution, a Reflux of purulent Matter often happens, when least suspected; which having once happened, there is little or no Remedy. The Inflammation occasioning this Reflux, is not that in the Skin, or the *Membrana Adiposa*, but in the *Aponeurotick* Parts, which is not so readily perceived.

The 16th of *November*, 1725, a Man was brought to the Hospital, who, by a Fall from his Horse three Weeks before, received a Contusion upon his Elbow. An Abscess was formed a few Days after, which had been opened and dressed by the Surgeon of the Village where he lived.

I am ignorant whether the Surgeon, in dressing him, perceived that the *Olecranon* was discovered; but, in all Probability, it was so at that Time.

When the Patient came to the Hospital, the Wound was filled with bad Flesh, attended with a continual Pricking.

Mr. *Morand*, whom I had desired to officiate for me that Day in the Hospital, feeling a loose Splinter of Bone with his Probe, dilated the Part upward and downward, making an Incision about the Breadth of three or four Fingers. Finding a slight Redness the next Day, attended with a Tumefaction at the Circumference of the Wound, I was apprehensive of a Reflux of purulent Matter, having observed it to happen before in a parallel Case; therefore, to prevent it, I prescribed emollient Cataplasms over the Lint, when the Wound was dressed.

The Inflammation dissipated, and two Days after another *Sinus* appeared, which I opened; a small Splinter was extracted by this Orifice, and the Bone was still discovered.

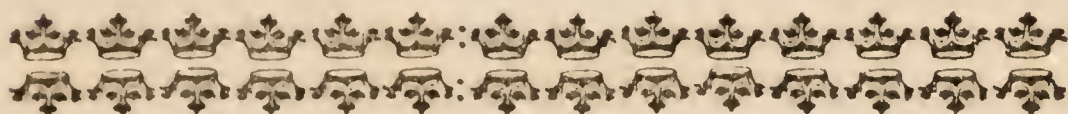
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I took care to prevent any fungous Flesh from arising, putting dry Lint upon it one Time, and at another a Piece of Lint dipped in Oil of *Guaiacum*; observing, at the same Time, to consume the Flesh at the Circumference of the Bone, sometimes with the brown Ointment, or with the Mercurial Water, according as it increased. At length the Bone insensibly exfoliated, and seemed covered with laudable Flesh, whence I only endeavoured to procure a Cicatrice.

R E M A R K S.

When the Bone is discovered, Wounds ought to be kept open till the Exfoliation happens, to prevent future Incisions, which do not redound to the Surgeon's Honour.

The Flesh proceeding from carious Bones is always fungous, and the Growth of it should not be encouraged.



OBSERV. LIII.

Of a Caries on the Cubitus, attended with a Critical Impostumation.

A *Caries* is nothing more than an Ulcer in the Bone, more or less profound; and an Exfoliation, only the Separation of the Eschar. It is the nutritious Juice of the Bone, which occasions the Separation of that Eschar, in the same manner, as in softer Parts; and that this Separation may be

the sooner performed, it is necessary to prevent the Communication of that Part of the Bone that ought to remain, from that which should exfoliate. The Ancients had the same Idea, and made use of the *Actual Cautey* to promote Exfoliation.

The Heat of the *Actual Cautey*, by communicating itself to the sound Part of the Bone, may dry it, and consequently alter it deeper than it was before. This is a Practice, however, that I cannot disapprove, and am convinced of its Usefulness in all profound *Caries*, whether in very solid Bones, as is the Middle of the large ones, or in those that are spongy; but in all Cases, where the *Caries* is superficial, I prefer the *Potential Cautey*, such as the *Lapis Infernalis*, or the Mercurial Water. By this Assistance, an Exfoliation is procured in twenty-five, or thirty Days at most, as will appear by the following Observation.

On the twelfth of *March*, 1727, a Man was sent to the Hospital, having a malignant Fever, which terminated in a Month's Time, by an Impostumation upon the external Part of the Fore-Arm. On the eighth of *June*, which was the first Time I saw him, he informed me, that in the preceding Month he had felt a Pain in that Part, his Fever beginning at the same Time; from which he was not intirely free at this.

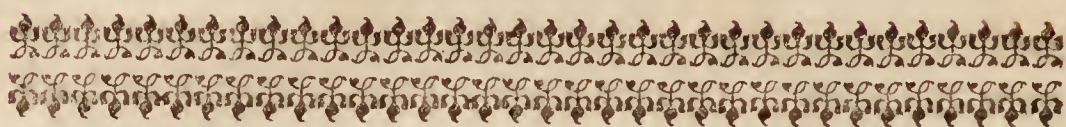
I found a Kind of *ædematous Tumour* on the Part, without Inflammation, or the least Appearance of a Collection of *Pus*. I prescribed *Emollient Cataplasms*, ordering them to be renewed Morning and Night, and proceeded in this Method for four Days; when finding the Tumour unadvanced, I directed a Plaister of *Diachylon cum Gummis*, which raising an Heat in the Tumour, in four Days more I perceived a Fluctuation.

I opened

I opened the Tumour, and found the middle and external Part of the *Cubitus* carious, four Fingers Breadth. In this Case, I occasioned a Loss of Substance, by cutting off one of the Lips of the Wound, lest the Flesh should push too forwards, before the Time of *Exfoliation*. I dressed him the first Time with dry Lint only, using a sufficient Quantity, to keep the Lips of the Wound asunder. I continued to dress it six Days with the common Digestive, putting nothing more on the *Caries* than a Pledget of dry Lint, till the Wound came to a proper Digestion. As soon as this was confirmed, I began to touch the carious Bone, and the neighbouring Flesh, with the *Lapis Infernalis*, and alternately with the Mercurial Water, dressing the rest of the Wound according to Art.

After the twenty-third Day, I perceived the Piece of Bone, the Exfoliation whereof I had waited for, was already separated from the sound Part, and supported by a very small Accretion of Flesh underneath; which made me think it improper to remove it, lest I should discover the Bone afresh. The twenty-sixth I took off the Piece, which was three Inches long, the Thickness of a Crown, and Breadth of half an Inch. The Exfoliation being performed, and the Bone extracted, the Wound healed, and the Patient was perfectly cured in forty-five Days.





O B S E R V. LIV.

Of a Finger crushed in Pieces.

WHEN we have a compound Fracture of the Bone, the necessary Operations ought not to be neglected; for the Patient, thro' Delay, is often afflicted with such Symptoms as might be prevented at first.

A Soldier of the Guards was sent to the Hospital on the 5th of May, 1728, who had the Fore Finger of his left Hand crushed in Pieces, and a Part of the last *Phalanx* taken off. As Limbs once extirpated never grow again, I deferred the Amputation as long as possible; therefore, the other Part of the Finger appearing in good Condition, I attempted to preserve it, and to this End, dressed it only with common Digestive, waiting for a Suppuration of the contused Flesh. Two Days after, a Swelling appeared on the Back of his Hand, to which I prescribed Compresses dipped in Brandy to be frequently applied. The Extraction of a Splinter of Bone on the third Day, gave me great Hopes that the Swelling upon the Hand would disappear; but instead of this, it increased with an additional Pain. The Glands under the Armpit were obstructed, which is almost a certain Sign, that a Portion of the vitiated *Lympha* was returned by the *Lymphatick* Vessels.

This is an Accident much to be apprehended in Wounds, where the *Aponeurotick*, or membranous Parts are concerned; when it so happens, that the

Lym-

Lymphatick Vessel, which returns this Fluid, empties itself into one of the *Sanguiferous* : In this Case, the Fluid returned mixeth with the Blood, creating Shiverings, which are generally attended with Impostumations in the Lungs, or the Liver ; but if the *Lymphatick* Vessel is of that Kind, that discharges itself into the Glands of the *Emunctory*, it occasions Swelling in those Glands, and frequently an Abscess.

I return now to the History of the Distemper, from whence an useful Reflection made me digress.

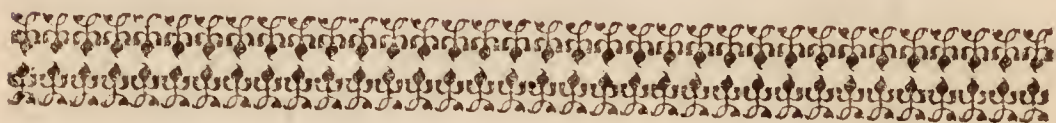
The Lips of the Wound turned outward, and seemed *Carcinomatous*, discharging a filthy *Sanies*, of an insupportable Stench. To prevent future ill Consequences, I performed what I ought to have done sooner, I mean, the Amputation of the Finger in the second Joint.

The next Day the Patient felt an intolerable Pain in the Articulation of the first *Phalanx* with the Bone of the *Metacarpus*, which made me fear the Loss of the first *Phalanx*. I was in doubt whether the Bone was not carious in the Articulation, which seemed to be sound ; or whether the *Capsula* only had suffered by the Inflammation. I made use of emollient and discutient Cataplasms for several Days ; by which Means, the Swelling upon the Hand diminished, and the Digestion became laudable, though the Pain in the Articulation still subsisted.

The 1st of *June*, which was the twenty fifth Day from the Wound, the Symptoms returned. This obliged me to renew the Use of the Cataplasms, which had been omitted for some Time ; and two Days after a *Sinus* appeared along the first *Phalanx*, which I had neglected to cut off ; a *Sinus* that extended to the *Metacarpal* Bones, and was the Consequence of an Inflammation in those Parts,

Parts, that terminated by their Putrefaction. An Expulsive Compress, carefully applied for two Days, being useless, I opened the full Extent of the *Sinus*.

Soon after the Distemper began to take a good Turn ; and, to procure an Exfoliation of the tendinous Parts, I touched the Bottom of the Wound with Oil of Turpentine, which so happily succeeded, that the Separation was performed in four Days, and the Patient recovered in a short Time.



O B S E R V. LV.

Of an Abscess on the Back of the Hand.

MANY of my Observations have demonstrated the Utility, and even Necessity of Incisions, when they are requisite to prevent a Stagnation of *Pus* in any particular Part. But if this essential Point can be omitted, without Injury to the Patient, it ought to be, since the Patient, by this Means, endures less Pain, and a more speedy Cure is promoted. We have an Instance of this in the following Observation.

In *May*, 1712, a Servant-Maid seeking for something in a Trunk, the Lid of it fell upon the Back of her Hand, which occasioned a large Contusion. She applied several Remedies to it for the Space of three Weeks, and then came to me for Advice.

I found a Fluctuation of a large Quantity of Matter, which, probably, inundated all the Tendons of the *Extensors* of the Fingers, the *Pus* extending upon the *Metacarpus*. I observed, at the
same

same Time, that upon the *Metacarpal* Bone, which supports that of the *Carpus*, and answers to the little Finger, there was a *Sinus* which discharged a ferous Matter. The Necessity of dilating it was past Dispute; but I thought it my Duty to preserve as much of the Skin as was possible, and not discover the Tendons. I thrust a Conductor with Difficulty into the *Sinus* formed by the *Pus*, and made an Incision along the Bone of the *Metacarpus*, that supports the little Finger; by which Means I injected some deterfive Injections into the Cavity the *Pus* had made before. In two Days I injected the Green Balsam, and then by using a gentle Compression, the Patient was perfectly cured in less than a Fortnight.

R E M A R K S.

This Practice is only justifiable when a Compression is requisite to prevent the Stagnation of *Pus*, and to force it out by the Orifice of the Wound in proportion as it is formed. The necessary Precautions to be observed in their Application are to be found in the forty-first Observation.

If I had not perceived in a few Days, that Nature aimed at a Re-union, I might have made a Contra-Incision, to give a free Discharge to the *Pus*, and suffer the Skin to unite with the Tendons; but the Re-union gradually proceeded, and I could easily discover those Parts where it began, by the Firmness of the Skin under the Finger.



O B S E R V. LVI.

Of a Compound Fracture of one of the Bones of the Metacarpus.

ON the 5th of *December*, 1725, a Man received a Wound upon his Right Hand with a small Piece of Iron, and came to the Hospital next Day.

I perceived a Wound half an Inch long, upon the Back of the Hand, between the Bone of the *Metacarpus*, that supports the little Finger, and that supporting the *Digitus Annularis*. I felt a small Piece of Bone with my Probe at the Bottom of the Wound, which seemed to be displaced. This obliged me to dilate it immediately; and having, by this Means, made Room for my Finger, I thrust it into the Wound, and discovered that the *Metacarpal* Bone, supporting the little Finger, was not only broke, but crushed in Pieces.

The Difficulty of extracting these Pieces, which held very fast, without the Patient's enduring abundance of Pain, added to the Fear of increasing the Inflammation, which was considerable before, made me resolve to amputate the little Finger. I began by making an Incision between that and the *Annularis*, and divided the two Bones of the *Metacarpus* to the Extremity of the Fracture. I cut off the Flesh at the Circumference of the End of the Bone, which still adhered to the *Carpus*, and made room for a small Saw, with which I sawed off the Point of the fractured Bone. I chose rather to do
this,

this, than to meddle with the Bone at its Juncture with that of the *Carpus*, by Reason of the *Aponeurotick* Adherences that fastened them together.

I ordered emollient Cataplasms to be often renewed upon the other Part of the Hand, and on the fifth Day the Inflammation disappeared. Two Bleedings, and a convenient Diet, were useful upon this Occasion. The Patient was plainly dressed with common Digestive. I touched the Extremity of the Bone for several Days with *Lapis Infernalis*, which exfoliated in a Month's Time, and he was perfectly cured in six Weeks.

This Finger might, perhaps, have been preserved by proper Incisions ; but I have so often seen a Reflux of purulent Matter in compound Fractures, that I judge it most prudent to perform the Amputation, especially when the Loss is so insignificant as that of a little Finger.





OBSERVATIONS *in* SURGERY
UPON THE
LOWER BELLY.

OBSERV. LVII.

Of a Bubonocèle and Hernia Cruralis.



MAN, by a sudden Fall, was immediately attacked with an *Hernia Cruralis* on the Right Side, who had worn a Truss a long Time, having been formerly afflicted with this Disease. He remained a Fortnight in this Condition, thinking it improper to abandon his Truss, being ignorant that the Compression made by it was capable of increasing the Symptoms. At length, the Pain he felt in his Groin being continual, he came to the Hospital the 9th of *January*, 1726.

From the Time of his Fall, he had generally vomited all he took, whether solid or liquid, not
being

being capable to retain a Spoonful; neither had he been backwards since the Accident. His Belly was swelled, without any apparent Inflammation, and was sensible of no Pain in it but when it was touched. That Part above, where the Tumour appeared, was always painful, although there was no Inflammation in the Skin: The Fever was moderate, the Pulse very slow and hard.

I attempted the Reduction of the Parts, without Success, which had been attempted before he came to the Hospital; and as the Cure seemed very uncertain, let me employ what Method I pleased, I prescribed an emollient Cataplasm to the Tumour, and desired a Consultation, the next Day, with Messieurs *Du Tertre* and *Petit*, that we might resolve upon what was most proper to be done.

Mr. *Reneaulme*, Physician of the Hospital for that Quarter, saw the Patient on the tenth Day, in the Morning, and was of Opinion to continue the Cataplasms till the Afternoon; and, to prevent a dangerous Operation if possible, he ordered the Nurse who had Care of him, as soon as the Cataplasm had produced its Effect, about five or six in the Evening, to place the Patient prostrated before the Fire, only upon his Knees and Elbows, and leave him there, to try whether the Parts would enter; which was a Posture, some Friend assured him, had been attended with Success in the Reduction of *Herniæ*.

I placed little Confidence in this Remedy, and therefore consulting my two Brethren, we resolved upon the Operation; being fully convinced, that no Prostrations could reduce the *Hernia*. However, we thought proper not to interrupt the Ceremony, in order to undeceive those who seemed to place a Confidence in it. In common Cases of this Kind, we always avoid losing twenty-four Hours, lest the
Intestine

Intestine should mortify in that Time ; but the Person in Question having been seventeen Days already in the same Condition, we might still wait a Day longer. The Nurse strictly observed their Order ; the Patient experienced the Remedy, and gained only Abundance of Fatigue. Mr. *Perron*, who principally applies himself to this Branch of Surgery, and is very expert in it, told me, that he had often tried this Method upon the Report of Dr. *Winslow*, but had never known it succeed.

On the eleventh, in the Morning, which was the sixteenth Day from the Accident, I performed the Operation upon the Tumour, and found it an *Entero-Epiplocele*. The Parts had passed under the *Ligamentum Fallopiatum*, near the *Os Pubis*, and forcing the *Peritonæum* with it, had formed a *Cystis*, wherein they were lodged ; which is called the *Cystis Hernialis*.

I began, by discovering the *Cystis* in the common Method ; and then dividing the Ligament, endeavoured to reduce the Parts, without opening the *Cystis Hernialis* ; but I soon perceived, that the closest Strangulation was not made by the Ligament ; and that the Mouth of the *Cystis* was contracted by the Pressure of the Bandage upon it. Then introducing my Finger, I found that the *Cystis* resembled a Purse drawn together ; and that the Entrance into it being so very strait, was alone sufficient to prevent the Reduction. I opened the *Cystis*, and then found a Portion of the *Epiploon*, which formed a Sort of Bag likewise, in which the Intestine was inclosed. I divided this Bag, without separating it from the *Cystis Hernialis*, to which its whole Circumference was adherent. Then I dilated the Entrance of the *Cystis* with the concealed Bistoury, in the same manner as we do the Ring in the *Hernia Inguinalis*, and reduced the Intestine,

I

which

which was changed a little brown, but not mortified. The strangulated Portion of the Intestine was no larger than a Cherry. I left the small Part of the *Epiploon* which adhered to the *Cystis*, thinking it would fall off by Suppuration.

I put nothing into the Wound but a Bundle of Lint covered with a Piece of fine Linen, which prevented the Descent of the Parts thro' the same Passage, and yet allowed Room for the Serosity to evacuate, should there be any Discharge, the whole being sustained by the common Bandage.

Three Hours after the Operation, I moistened the whole Dressing with *Ol. Ros.* that it might not bruise the Wound, when it was hardened with Blood. I ordered the Patient to be bled half an Hour after the Operation, who went backward immediately, discharging more Wind than Excrement, and was so much relieved by it, as to take a little Broth without returning it: Then I ordered emollient Embrocations to be made upon the Belly, and repeated every third Hour.

The Distemper proceeded happily enough till the eleventh Day; but the Patient still complained of a Pain in the *Abdomen*, having a slight *Diarrhæa* mixed with Blood; he had no Appetite, and growing gradually weaker, died without the least Agony.

I opened him in the Presence of several Surgeons, and found, in the *Intestinum-Ileon*, in that Place next the Wound, which was probably the strangulated Part, a black gangrenated Spot, of the Bigness of a Farthing; but the Intestine was not penetrated. Throughout the whole Length of the *Jejunum*, there appeared at least fifteen of the same Kind of black Spots, and three or four upon that Part of the *Ileon* which filled the right *Regio Iliaca*; the rest of the Intestines were sound, and it could

hardly be perceived that they had been inflamed; the other Parts were in their natural State.

R E M A R K S.

You find, in this Observation, that the Patient's Belly was little painful or distended.

Upon opening the Body, we found no Inflammation in the Intestinal Canal, yet black gangrenous Spots appeared in different Places: How then could this Gangrene happen? Inflammations never make so quick a progress in old People as in young; and may not this proceed from two Causes; either that the Blood in the former is less subject to be inflamed, or that the Texture of their Vessels having less Elasticity, does not so easily admit of the Tension which contracts their Diameters? These Parts, which seem but slightly inflamed, will gangrene however; and for this Reason, because the Fluids, circulating more slowly in them, are most liable to stagnate.



O B S E R V. LVIII.

Of Opening a Body after an Hernia Cruralis.

THIS Observation, joined to the preceding, may convince us of a Truth with respect to the Strangulation in *Herniæ*, hitherto unmentioned by Authors.

On the fifth of *March*, 1726, I was sent for to a Gentleman's Coachman, who had been afflicted with

with violent Pains in his Belly for the Space of a Week, occasioned by a Rupture, to which he had been subject a considerable Time, and had it generally kept supported by a Bandage. The Rupture had been reduced twenty-four Hours after the Descent of the Parts, and the Patient twice bled; but the excessive Pains, accompanied with continual Vomitings, still subsisted.

Mr. *Arnaud, junior*, who had reduced the *Hernia*, finding the Symptoms to continue, ordered the Patient to take fifteen or sixteen Ounces of crude Mercury, being persuaded, that in Consequence of the Inflammation, there might be a *Volvulus*, which was the Reason the Symptoms subsisted. The crude Mercury proving ineffectual, and having no Evacuation downward, somebody advised the Injection of a Tobacco Clyster; but these two Remedies failing, the whole Family was alarmed.

I examined the Case, and found the Patient almost without Pulse, and ready to expire. The Tumour in the *Inguen* was dissipated; but instead of it, a Kind of Vacuity was to be felt, and the *Ligamentum Fallopiatum* had so far yielded to the Volume of the *Hernia*, that I could almost thrust my four Fingers with the Teguments underneath it.

I immediately remembered the Strangulation that was formed only by the Mouth of the *Cystis*, as mentioned in the former Observation; and presumed, that the Intestine, reduced with the *Cystis Hernialis*, was still lodged and strangulated in that Part. But finding the Patient near expiring, I judged it improper to hazard a fruitless Operation, and, by that Means, give it a Discredit. The Person died at Five in the Evening.

Being willing to undeceive the Family, who were prejudiced against the crude Mercury the Pa-

tient had taken, and justify my Brother's Reputation, as well as to be convinced whether my Opinion of the Cause of his Death was well grounded, I requested to open the Body; which was granted with much Difficulty. I called in Mr. *Arnaud*, who had reduced the Intestine; and, upon my Idea communicated to him, before we proceeded to the Aperture, he told me, that at the Time of the Reduction, he remembered, that he did not hear that Noise the Intestine generally makes when it enters into the *Abdomen*; and that the Parts composing the *Hernia*, passed in an Heap under the Ligament, like a Tennis-Ball.

What I had foretold, was verified upon opening the Body. We found the *Cystis Hernialis* in the *Abdomen*, being about three Inches in Depth, and eight Inches in Circumference; and within this *Cystis* was inclosed half an Ell of the *Intestinum Jejunum*. Embracing the whole *Cystis* with my Hand, I endeavoured to draw out the Intestine by pulling it at one End; but the Entrance into the *Cystis* was so contracted, that it was impossible; and I could not effect it any other Way than by dilating this Entrance with my Scissars. How could the Intestine be forced out of the *Cystis*, and be reduced by the *Taxis*? The whole Portion of the *Intestinum Jejunum*, above the Strangulation, was very much distended, being filled with a Liquid, and the Crude Mercury the Patient had taken, and was become half an Inch thick in the Circumference, by the Inflammation. Even the *Mesentery* that supports the *Jejunum*, had contracted a supernatural Thickness, the Vessels being tumefied and turgid with Blood.

R E M A R K S.

In this Observation, and the preceding, we find that the Entrance of the *Cystis* is capable of contracting to such a Degree, as to occasion a Strangulation alone. How can this happen? In all *Herniæ*, reduced by the *Taxis*, the *Cystis Hernialis* subsists; and though the Parts are reduced, the *Cystis* does not always re-enter. This is what I have often remarked in opening many dead Bodies, wherein I have found the *Cystis Hernialis* of a greater or a lesser Dimension, on one Side or the other, and sometimes on both. In those who have supported the Parts reduced by Means of a Truss, I have found the Entrance of the *Cystis* contracted and narrow; but, on the contrary, very wide in those who have not worn it. Upon opening several Children, dead of different Distempers, who had been cured of *Herniæ* when they were Infants, by wearing a Bandage, I have always found the *Cystis Hernialis*, though they had been cured long before: I found likewise, that only the Entrance of the *Cystis* was contracted, and would admit of a larger or lesser Probe. We ought not to be surprized at this Contraction; since, when an *Hernia* is reduced, the internal Sides of the Entrance into the *Cystis* are pressed together by the Bandage: Neither is it astonishing that no Re-union happens, since, when it does, an Inflammation must be antecedent to it. *Vide* Observ. LXXIV.

If it was always possible to reduce the *Cystis Hernialis* after the Parts descended, and to support it, thus reduced, together with them, the Advantage would be considerable to the Patients.

The Entrance of the *Cystis* contracting, as I have said, in most *Herniæ* where there is a Strangulation,

provided it be not the first Time of the Descent of the Parts, and the Patient has taken care to secure them with a Bandage, you may expect less Difficulty in the Reduction, from the Resistance of the Ligament or Ring, than from the *Cystis Hernialis*, whose Entrance is much straiter than the Bottom, for Reasons mentioned before.

When the Symptoms, that are inseparable from the Strangulation of the Intestine, subsist after the Reduction, the Surgeon ought to inquire into the Cause. It may proceed from an Inflammation of the intestinal Canal, which remains after the Parts are reduced. A *Volvulus* may be the Consequence of that Inflammation, and of the Antiperistaltick Motion that succeeds it. The Strangulation may subsist also after the Reduction, as in the last Case, because the *Cystis Hernialis* was reduced at the same Time.

In these three Cases the Symptoms are the same; but I shall offer what may sometimes make you distinguish the true Cause, and prevent your being mistaken.

If they are occasioned by an Inflammation, the Pain is almost equal throughout the whole Extent of the *Abdomen*; if by a *Volvulus*, the Pain extending over the *Abdomen* is much more acute in one fixed and permanent Point.

If they proceed from the Reduction of the *Cystis Hernialis*, the Surgeon cannot mistake; for he either feels a Vacuity under the *Ligamentum Fallopiatum*, or in the Ring, or by what happened when the Parts were reduced, *viz.* If the Surgeon, at that Time, was insensible of the Noise generally attending the Reduction of *Herniæ*.

In the first Case, that is to say, in the Inflammation, we find little Relief but from Bleeding and Fomentations, which often prove unsuccessful.

In

In the second, that is to say in the *Volvulus*, the Use of a large Quantity of crude Mercury, taken by the Mouth, may, by its Gravity, disengage the Intestine which has entered into itself like the Finger of a Glove ; yet it is necessary to be certain, that the *Volvulus* is caused from above downwards ; that is to say, if the superior Part of the Intestine has entered into the inferior, the Mercury will be useless : But if Bleedings and Fomentations, which are necessary at the same Time, do not calm the Inflammation, that is, if the *Volvulus* returns, the Patient must perish.

In the third Case, an Incision must be made where the *Hernia* was, and then dilate the Ring, or divide the Ligament, in order to draw the *Cystis Hernialis* back with the Fingers, or a Pair of *Forceps*, open the *Cystis*, dilate its Entrance, and reduce the Intestine. This *Cystis* cannot be far distant, since it is a Part of the *Peritonæum*, that lines the Inside of the *Pelvis*.

In the *Hernia Cruralis*, I perceive no Difficulty in making a Ligature upon the *Cystis Hernialis*, in the narrowest Part. This can seldom be performed in the *Hernia Inguinalis*, without depriving the Patient of one *Testicle*. Therefore, though this Ligature is the most effectual Method to prevent the Return of the *Hernia* after the Cure, I dare not advise it ; but it may be attempted in Women in the *Hernia Inguinalis*, as well as the *Cruralis*.

There is, however, one Case wherein this Ligature is not convenient, but pernicious ; and that is, when, upon performing the Operation, a large Quantity of putrid Serosities have been found in the *Cystis Hernialis*.



O B S E R V. LIX.

Of a Bubonocoele, being an Hernia Inguinalis.

ON *Tuesday* the 14th of *January*, 1726, a Surgeon, forty Years of Age, was attacked with two *Herniæ Inguinales* at the same Time, by endeavouring to lift an heavy Weight. He had reduced them himself, and wore a double padded Bandage; and thinking he was cured, in six Weeks time threw his Bandage aside, because it was troublesome. I am apt to believe he would have continued the Use of it longer, had he reflected, that every Person afflicted with an *Hernia*, is continually in Danger of his Life, unless he wears a Bandage. That on the Left Side did not return; but that on the Right appearing sometimes, he only reduced it.

The 14th of *June*, 1726, he felt a Pain in his Right Groin, as he was rising out of Bed; and without giving much Attention to the Pain, which was slight, he strained violently in going backwards; and then went about his Affairs, without reducing the Parts that were fallen down. The Pain increasing, he went to Bed, and was let Blood: On *Friday* he was bled again, and had a Clyster injected, which he voided without any *Fæces*. The Clyster was repeated on *Saturday*, and in the Evening he was seized with Vomitings: This induced him to be bled again a fourth Time, without making any Attempt toward the Reduction of the Parts; and in this Condition he remained till *Tuesday*,
day,

day, when the Vomitings ceased, but an Hiccup succeeded in its stead.

When he was almost expiring, he ordered himself to be carried to *La Charité*, where the Surgeon upon Duty immediately applied emollient Cataplasms to the Tumour. This was the sixth Day from the Strangulation, as I observed before: I performed the Operation the same Day, about four in the Afternoon, first making a dubious Prognostick of the Success, the Patient being in a deplorable Condition.

Having divided the Teguments as usual, and defrænated the Vesicular *Laminæ* of the *Tunica Vaginalis*, I came to the *Cystis Hernialis*, which I found very thick, and extremely distended upon the Parts it inclosed. I endeavoured to avoid opening the *Cystis Hernialis*, for the Reasons to be mentioned hereafter, not believing that the Intestine was mortified; and dilated the Ring with the concealed Bistoury, which I introduced between that and the *Cystis*.

This concealed Bistoury is not the same that is generally known by the Name of the *Hernial* Bistoury, described by Mr. *Garangeot*, in his Treatise upon Chirurgical Instruments, which he disapproves, with other good Practitioners. This is one of my own Invention in the Year 1725, which entirely answers the Intention of the Surgeon, having often used it since with Success: You may see the Figure of it in the Plate annexed.

The Fault of the *Hernial* Bistoury, with which every Surgeon is acquainted, consists in having the Point of the Blade coming out of the *Cranula* of the hollow Probe, when you press your Thumb upon the Plate at the Heel of the Blade. On the contrary, in mine, the Heel of the Blade is raised as it comes out of the hollow Probe, and draws back-

backwards when you press the Thumb upon the Plate ; and this in such a manner, that it is impossible the Point should rise out of the hollow Probe ; and without being obliged to move the Body of the Instrument, or draw it back to make it cut.

You see in this Plate, Fig. 1. the Instrument whose Blade is hid in the hollow Probe. Fig 2. The Instrument whose Heel of the Blade rises by pressing upon the Plate with your Thumb. Half the Body of the Instrument is removed according to its Length, that you may see in what manner the Blade is fixed to a Sort of a Turniquet, that directs its Motion, and the raised Heel when you press upon the Plate with your Thumb. You see, in the Body of this Instrument, two small Wings that keep the Intestine firm, when the hollow Probe, in which the Blade is concealed, is introduced into the Ring.

As soon as I had dilated the Ring, the Intestine re-entered into the *Abdomen*, and the *Cystis* became much less distended ; but being emptied only in Part, I was obliged to open it, and discharge a little purulent Serosity. I found none of the Intestine, and perceiving only a small Portion of the *Epiploon* adhering to the internal Part of the *Cystis*, I refused to separate it, judging it would fall off by the Suppuration, which happened in the End.

I put a small soft Tent, fastened to a Piece of Thread, into the Ring, or rather into the Entrance of the *Cystis*, covering the Wound with a proper Dressing, sustained by the *Spica*. I ordered Embrocations, and emollient Fomentations over the Belly. He was bled half an Hour after, and then had an emollient Clyster administered ; which he ejected in half an Hour, with a copious Discharge

Fig: 1st. The Hernial Bistory shut.

Fig. 2.

Fig: 2. Ditto open, to shew its composition.

A The hollow Probe intire, in which the Blade is concealed.

B Half the Probe in length.

C The Blade rais'd out of the Probe.

D A Round, at the end of the Blade, running in 2 Grooves, to prevent its coming out of y^e Probe.

E The Tourniquet that gives motion to the Blade.

F A Flat, on which the Thumb presses to raise the Heel of the Blade.

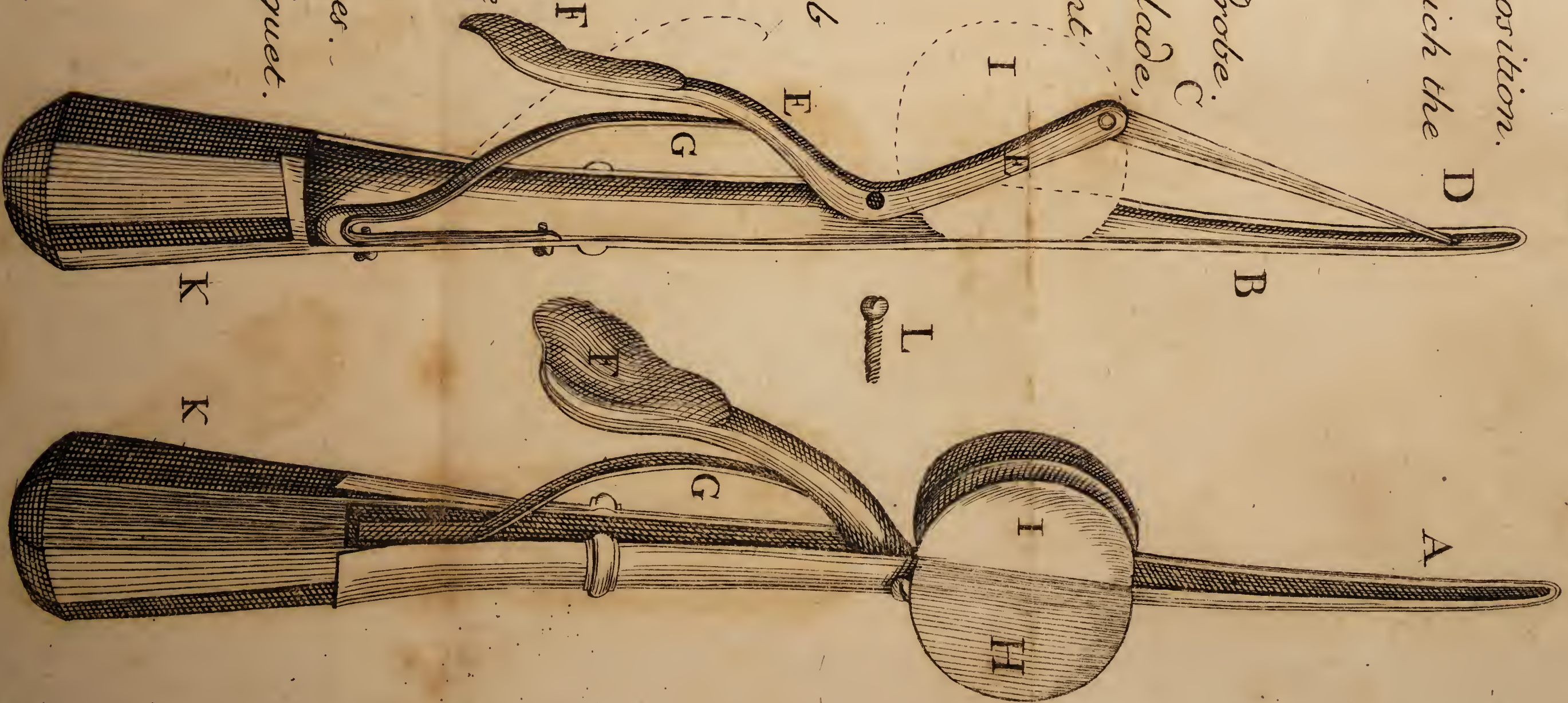
G A Spring to raise the heel of the Tourniquet, & cause y^e heel of the Blade to return into y^e Probe.

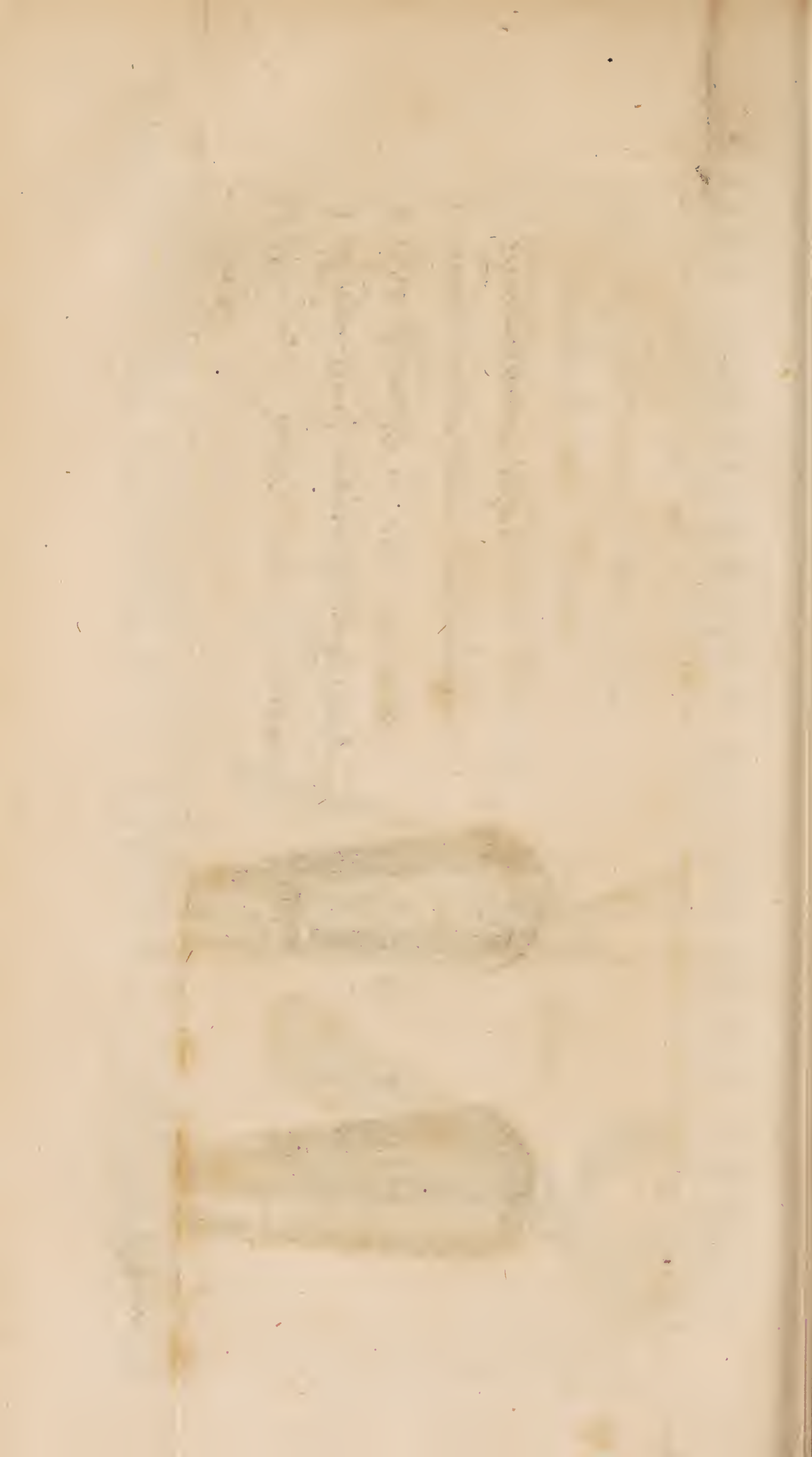
H Wings to cover the Intestines.

I Wings that support y^e Tourniquet.

K The Handle of the Bistory.

L The Screws, upon which the Tourniquet plays.





charge of *Fæces*. The Fomentations and Embrocations were continued all Night.

As I had found a purulent Serosity in the *Cystis Hernialis*, I removed the Dressings next Day ; and, to keep the Ring still open, put a small Dossil into it, dipped in a Mixture of Oil of Roses, and the Yolk of an Egg. The Patient was twice bled that Day, and the Fomentations repeated. The third and fourth Days after the Operation he was bled again, the Fever still subsisting. The Hiccup ceased after the first Dressing was removed.

The eighth Day, the Patient told me, that some Moisture had issued from the Wound, and, in Effect, the Dressings were very wet. I examined it, and finding no Moisture to flow from it, suspended my Opinion till the next Day ; when, upon pressing above the Ring with my Hand, I discharged a greater Quantity of Matter than the Wound ought to furnish. The eleventh Day, perceiving that the Broth he took came through the Wound, almost unaltered, I was confirmed that the Intestine was opened. As it had been strangulated six Days, that Part thus strangulated by the Ring was mortified, and some Time was requisite for the Separation of the Eschar ; for which Reason, the Distemper did not declare itself till eight Days after the Operation. Then I prescribed him a very severe Regimen, and convinced him that his Health depended upon the Strictness of his Diet ; that he should take very little Nourishment at a Time, to the End that this small Quantity might enter into the Blood, before it descended to the Aperture of the Intestine. As he was a Surgeon's Mate, and understood a little Anatomy, he comprehended my Reason, and carefully observed the Regimen prescribed.

A Surgeon in the Hospital, who acted under me, thought he did good Service, by representing to me, that it would be necessary to enlarge the Orifice of the Ring, that the *Fæces* might be freely discharged. I thought it improper, since all Openings heal with Difficulty, thro' which a Moisture continually flows; but thinking that I might be mistaken, I assembled several of the Fraternity in Consultation, wherein we concluded, *una Voce*, to leave all Things in the same Condition, and to dress the Wound simply, without putting any Lint into the Ring. At length the Chyle ceased flowing thro' it, the thirty-seventh Day after the Operation.

From the first Day, the Intestine appeared to be opened, to that when the Ring was closed, the Patient discharged no Excrement by the natural Passage, most of it passing thro' the Wound. Tho' I was persuaded that some Part of the *Fæces* must have pursued the Path of the Intestinal Canal, and were indurated in the *Colon*, I administered no Clyster, lest the Patient, by straining, should break the Cicatrice of the Intestine; but at length I prescribed one to liquify the *Fæces*, which gave him a Motion downwards, and in fifteen Days the superior Part of the Wound cicatrised.

There was a small *Sinus* at the inferior Part of the Wound, next the Testicle, which penetrated to the Bottom of the *Scrotum*; that, perhaps, remained for want of extending the Incision low enough, when I performed the Operation. I mention this in Favour of young Surgeons, who had better improve by the Mistakes of others, than their own. It might otherwise be formed, by the Contraction of the Skin, the Bottom not being soon enough filled up. I dressed it simply, observing to discharge the *Pus* each Dressing; but avoided making an Incision, lest the Patient, starting by the Pain, should

should shake the Intestine near the Ring. As soon as I was certain it was cicatrised, I opened the *Sinus* to the Bottom of the *Scrotum*, which obliged the Patient to stay three Weeks longer in the Hospital; during which Time, I was always severe in his Regimen of Diet, being persuaded that the least Indigestion or Cholick was capable to ruin the whole; and, by Means of this Precaution, he went from the Hospital perfectly cured.

R E M A R K S.

Many Inferences may be drawn from this Observation.

It is extremely dangerous, in the Management of *Herniæ*, to suffer the Strangulation to subsist long; for at length the Intestine mortifies, and that Operation, which is not dangerous, in itself, is often attended with Accidents, and followed by Death, on account of the diseased Intestine. From hence *Hippocrates* forbids us to perform the Operation after six Days Strangulation. But, notwithstanding the Respect I bear to the Authority of so great a Man, I cannot forbear saying, that his Decision admits of an Appeal.

When you are obliged to perform the Operation, to cure an *Hernia* attended with a Strangulation; if at the same Time, you can be certain that the Intestine is sound, you may dilate the Ring, without opening the *Cystis Hernialis*; a Practice, however, from whence no great Advantage results to the Patient; but when the Strangulation has subsisted for many Days, as the Intestine may be mortified, this Method is improper; because, in this Case, when the Eschar comes to separate, the Chyle or Excrements will fall into the Cavity of the *Abdomen*, and destroy the Patient. Therefore
if

if the Strangulation be of several Days Continuance, the *Cystis Hernialis* must absolutely be opened before the Ring is dilated.

When I practised otherwise, in the Case before-mentioned, some Difficulties that attended my Admission into *La Charité* still subsisted; and being convinced that the Intestine might be mortified, I was afraid my Adversaries would have accused me of having cut it; but the Discharge of the Chyle, which happened eight Days after the Operation, proved to the contrary.

Had not the Intestine returned of its own Accord, I should have perceived the Mortification, and, perhaps, have made a Ligature to secure it; but here Nature had supplied the Use of it by the Adhesion of the Intestine to the *Peritonæum*, near the Ring. Experience has since instructed me, that this Ligature may be omitted, when the Intestine is opened, or ready to open by the Mortification; because the Inflammation preceding it, always produces an Adhesion of the Intestine. But I believe it absolutely necessary when, the Intestine not being mortified, the Surgeon should have the Misfortune to open it in the Operation.

When the perforated Intestine is fastened near the Aperture, thro' which the *Fæces* are discharged, care must be taken that the Patient avoids all Efforts that may occasion a Contraction of the Muscles of the lower Belly, which may uncement the Intestine, and remove it from the external Wound.

In old *Herniæ*, that descend, and return back again with Ease, as the *Cystis Hernialis* always remains without, and never ascends with the Parts, should a Strangulation supervene, that obliges us to perform the Operation, you may always expect to find the Thickness of the *Cystis*, in proportion to the Time of the *Hernia*.

OBSERV.



OBSERV. LX.

Of a complete Hernia, being an Enterocoele.

IN a *Hernia* accompanied with a Strangulation, the End proposed by the Surgeon in the Operation, is to reduce those Parts into the *Abdomen*, from whence they are fallen ; nevertheless, several Things may, and ought to prevent the fulfilling this Indication. A Mortification of all the Intestine out of the *Abdomen*, is one of the Cases wherein the Reduction is forbid ; because this would be putting a mortified Part into it, which, at the Separation of the Eschars, would inundate the Cavity of the *Abdomen* with stercoral Matter, and occasion the Death of the Patient. If then the Surgeon ought to leave the Intestine unreduced, he must take particular Care to dilate the Ring of the *Obliquus Externus* sufficiently, and all that occasion'd the Strangulation ; for it is not the Intestine's being misplaced that causes those Symptoms sometimes attending *Herniæ*, but its Inflammation and Restriction, the Consequence whereof prevents the Evacuation of the Excrements.

One of the *French* Guards had been troubled with an *Hernia* near twenty Years, which appeared and disappeared at different Times, according to his Manner of Living. The 18th of *January*, 1720, the *Hernia* re-appearing, the Parts did not return as usual, which occasioned a considerable
Inflam-

Inflammation, succeeded by a Strangulation. The Reduction was attempted in vain, by the Operation called the *Taxis*, which only augmented the Inflammation, by handling the Tumour. Bad Symptoms, which generally accompany Strangulations of the Intestines, soon followed, and even an Hiccup, that seldom happens so suddenly. To calm these Symptoms, the Surgeon bled him three Times in thirty-six Hours, and gave him a few gentle Potions : Had he understood his Distemper, and the Cause of his Vomitings and Hiccup, he would have known that his Potions were useless. In short, the Patient was brought to *La Charité* two Days after. This was a complete *Hernia*, formed only by the Intestine. The Tumour was hard and distended, accompanied with an Inflammation, extending above three Fingers Breadth beyond the Circumference of the Ring. The Fever, Vomitings, and Hiccup, were aggravated to the highest Degree. The Patient's Complexion was livid, and an universal Coldness prevailed. All these Symptoms united, made me apprehend, that he would die in the Operation, or, at least, a few Hours after ; therefore I was afraid to attempt it, or, rather, thought it useless. However, I ordered him to be bled then, and again in the Night, prescribing emollient Cataplasms, with Ointment of Marshmallows, to be applied to the Tumour. The Patient was alive the next Morning, and in the same Condition as the Evening before, which could not be worse. The Physician prescribed him a Cordial Julep, and I ordered the Cataplasms to be continued. In short, I ventured to perform the Operation in the Afternoon.

I had no sooner opened the *Cystis Hernialis*, but I found a Foot of the *Intestinum Rectum* out of the *Abdomen*, and perfectly black. Beside the Strangulation

gulation made by the Ring of the *Obliquus Externus*, there was another two Fingers Breadth above it, and another more considerable caused by the *Cystis Hernialis*, which was much contracted, forming four or five strong Bridles; and this it was that most opposed the Reduction of the Parts. It was easy to remove the Strangulation made by the Ring, but I had some Trouble to divide the Bridles above it; however, at length I obtained my End. The Intestine, as I said before, was entirely mortified, black, and hard, therefore I thought it improper to reduce it; and would I have done it, should have failed in the Attempt, the Reduction being impossible; because the Inflammation, which extended far beyond the Strangulation, had rendered it adherent to the *Peritoneum*, at the Circumference of the Ring, on the Inside of the *Abdomen*. This Adhesion was easily discovered with my Finger. The mortified Intestine being filled with a Liquid, I divided that in two, to discharge it, and then it began to subside. I dressed him with Lint sustained by a proper Bandage, the whole being dipped in Spirit of Wine camphorated.

I removed the first Dressing next Day, and made use of a Digestive well animated; the Juleps were repeated, and presuming, from the Pain the Patient felt in his Belly, that the small Guts were inflamed, I ordered emollient Fomentations to be instantly applied, and renewed every Hour. The very same Night, all that was contained in the intestinal Canal, above the Strangulation, began to evacuate by the Wound, and the Patient found himself relieved in proportion to the Quantity discharged, and the natural Heat returned. In short, the Vomitings and Hiccup ceased about six o'Clock the third Day. The Cordial Juleps were

P
still

still repeated, and the same Regimen and Dressings observed. The *Fæces* proceeding from the Intestine were constantly discharged by the Wound, but began to flow with more Difficulty, and could not be evacuated without the Admission of the Breast Probe, or my Finger. This Difficulty must arise, either from its Adhesion to the *Peritonæum*, which impeded the *Peristaltick* Motion, designed by Nature to protrude the *Fæces* in the intestinal Canal, or, as the natural Direction of the Intestine was changed, it might, perhaps, proceed from these two Causes united.

The sixth Day after the Operation he was in so good a Condition, that I declined the Use of the Fomentations; and two Days after, the Patient complaining of Hunger, I allowed him a little more solid Food, being indeed very much emaciated; which is no Wonder, since above half the Chyle that came from the Stomach, and should have entered the *Lacteals*, was discharged by the Wound; therefore the Reparation was so inconsiderable, that the Nutriment received was not adequate to the daily Secretions.

In less than twelve Days the whole Portion of the mortified *Ilion*, which I had left unreduced, separated; but a Part of the *Mesentery*, to which the Intestine was fastened, remained in the Wound below the Ring, of the Bigness of a Mushroom, which retarded the Cure. There was no Difficulty in the Extirpation of it with a Pair of Scissars; but as this might occasion an Hæmorrhage, I therefore chose to destroy it with the potential Caustery. To this End, I took the Hem of a Piece of strong Linen, which I dipt in Mercurial Water, and tied it round this Portion of the *Mesentery*, even with the Ring. I tied the Knot no faster than was necessary for the Escharotick to touch

touch that Place I had a Mind to cauterise. The next Day I separated the Eschar with my Scissars: I repeated the same Handy-work the next Evening, and the third Time the whole Piece was eradicated. The Wound being now no more than a simple Wound, it was dressed with Mundificatives, Desiccatives, calcined Alum, and other Medicines, according to the Indications.

In the Space of a Month, the Excrements that continually discharged by the Wound, and spread over the Dressings, caused an *Erysipelas*, with an Excoriation upon the Belly and Thigh. This was moderated in a few Days, by the Application of Compresses dipped in a Quart of Brandy, and three Quarts of Water, with a little Copperas and Verdigrise in the Composition.

At length the Cicatrice advanced, and the Skin united to the Circumference of the Extremity of the Intestine, that left an *Anus* in the Groin, thro' which the Excrements were evacuated. In short, the Patient left the Hospital in two Months Time, and was received into the Invalids.

OBSERV. LXI.

Of a Bubonoccele, being an Hernia Cruralis.

IN the Management of that Case, which was the Subject of the preceding Observation, we find, that notwithstanding the deplorable Condition of the Patient, by a strangulated Intestine, that Nature sometimes conquers all Difficulties,

when the Strangulation is removed. This emboldened me for the future, and I have cured some Patients by the Operation in Cases nearly resembling the last, when we have thought they had not four Hours to live.

In *April*, 1731, Mr. *Arnauld*, sworn Surgeon at *Paris*, who applies himself principally to the Cure of *Herniæ*, was sent for to visit a Lady about forty Years of Age, who had been seven Days afflicted with a *Miserere*. He found, upon Examination, that a very small *Hernia Cruralis* was the Cause of her Complaint, and was of Opinion, that she could not be cured without the Operation, by reason that these small *Herniæ* can seldom be reduced : And besides, that the Strangulation was of seven Days Continuance. We went together the next Morning, and found the Patient almost expiring. The Vomitings and Hiccup were almost ceased, and the whole Body as cold as a Stone ; she had no Pulse, and could not clearly distinguish Objects. The Certainty of an approaching Death, induced us to propose the Operation, as an Attempt that was the only Resource ; which being consented to, it was instantly performed.

Having opened the *Cystis Hernialis*, I discovered a very small Portion of the Intestine, of the Bigness of a Cherry at most ; and when I had dilated the Passage with my Bistoury, it was easily reduced.

From that Moment the Patient grew easier, and so suddenly, that I was amazed ; and perfectly recovered in a Month.

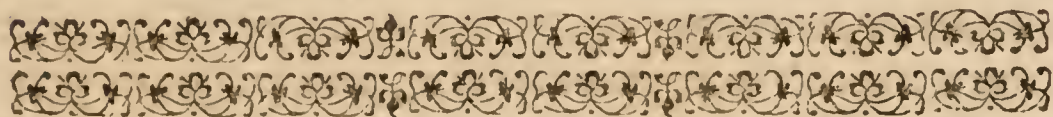
Bleedings, a proper Regimen, and Applications, were all used according to Art, rather to prevent fresh Accidents, than to correct those that had accompanied the Strangulation, which were moderated two Hours after the Operation.

My

My Father had practised the same in a parallel Case, upon a young Gentlewoman who was just recovered of a Dropsy. And though it was contrary to the Advice of several who were consulted, yet the Operation succeeded.

R E M A R K S.

We see by this Observation, that when we are called to those afflicted with a violent Cholick, it is always necessary to be informed, whether the Patient has an *Hernia*, especially when the Symptoms of the Disease have any Resemblance to those attending a Strangulation of the Intestine. It is not always sufficient only to be informed, but even to be certain, especially when the Presumption is strong. The Patient in Question believed she had no *Hernia*, because the Portion of the Intestine that formed it, was so very minute; and she being fat, hardly any Tumour was perceivable.



OBSERV. LXII.

Of a compleat Hernia, being an Entero-Epiplocele.

TH E Symptoms consequential to a Strangulation, that sometimes attend an *Hernia*, are not so violent or sudden, when a large Portion of the *Epiploon* is found with the Intestine, as when the Intestine is strangulated alone. The Reason of this Difference is, that the Intestine suffers less upon two essential Accounts: The first and principal is, that the *Epiploon* being an adipous Substance, yields

to the Compression, provided the Vesicles compressed at the Place of the Strangulation, empty themselves into those either above or below it; which diminishing the Volume of the *Epiploon*, the Intestine is less restringed. The second is, that the *Epiploon* is generally situated before the Intestine, by which Situation it serves as a Buckler, and defends it, in those rough Attempts made to reduce it, by the Operation of the *Taxis*.

A certain Postilion had been troubled with an incompleat *Hernia* from two Years of Age, occasioned by Cryings and Sobblings, which are common to Children. This *Hernia* had remained in the same Condition nineteen Years, without any supervening Accident. The 20th of *April* 1729, the *Hernia* became compleat, by straining himself in shoving a Coach; and two Hours after, an Inflammation appeared at the Ring of the *Obliquus Externus*, accompanied with a Fever, and a slight Inclination to vomit. The Patient, surprized at his Condition, sent for a Surgeon, who after many fruitless Attempts to reduce it by the *Taxis*, bled him three Times in two Days, and prescribed him a Decoction of Bran and Honey for his common Drink. Notwithstanding the Inflammation, which was very considerable, the Fever was not augmented, and the Inclination to vomit remained the same. He continued eight Days in this Condition, and, at the End of that Time, began to vomit Excrements; which fresh Symptom determined him to be carried to *La Charité*, on the 27th of the same Month.

As soon as he came in, I desired him to relate to me all that had passed before; which when he had done, I convinced him of the Necessity of performing the Operation immediately; who consenting to it, I performed it instantly.

When

When I had opened the *Cystis Hernialis*, the first Part offered to my View, was a considerable Portion of the *Epiploon* and under that, about six Inches of the *Intestinum Ilion*. The whole Portion of the *Epiploon* was mortified, and the Intestine very sound. I dilated the Entrance of the *Cystis Hernialis*, and the Ring, and then reduced the Intestine: Nothing now remained but the *Epiploon*, which was almost black. I drew it farther out, and made a Ligature upon the sound Part, cutting it off an Inch below the Ligature. The Wound was dressed with dry Lint, according to Art, placing a soft Bundle of it, covered with a Piece of fine Linen, before the Ring, the whole being supported by a proper Bandage.

It is unnecessary, here, to relate what was done to calm the Symptoms; such as frequent Bleedings, Embrocations, Fomentations, Clysters, and a proper Regimen of Diet; having proceeded in the same Method described in the preceding Observations, which produced a good Effect.

The eighteenth from the Operation, the Patient was seized with a Shivering, followed with a violent Fever. I was afraid this indicated a Reflux of purulent Matter; but the Fever ceased, and returned again the third Day at the same Hour. This Regularity of the Shivering, and the Patient's Condition in the Interval of the Paroxysms, convinced me that it was the Beginning of a *Tertian* Ague; for which Reason he was bled, and the Bark prescribed. Two Days after, the Shivering returned a third Time, but somewhat later. The Bark was continued, and the Fever ceased the seventh Day; but this was succeeded by a Difficulty in Respiration, and a general *Œdema*, which were removed by cordial and aperitive Medicines, prescribed by Mr. *Renaulme*, Physician to the Hospital.

The Wound, which was now become only a simple one, was dressed according to the different Indications, and entirely healed in forty Days.

R E M A R K.

When you are obliged to make a Ligature upon the *Epiploon*, you must always draw it out till you discover the sound Part, lest you should make it too low. And as we have often seen the Entrance of the *Cystis Hernialis* cause a Strangulation an Inch or more above the Ring of the *Obliquus Externus*, if the *Epiploon* be not sufficiently drawn out, you would run the Risk of making the Ligature in the mortified Part.



O B S E R V. LXIII.

Of an Hernia Epiplocele forming an Abscess in the Regio Epigastrica.

THE *Hernia Epiplocele* not only happens at the *Umbilicus*, and in the *Inguen*: I have seen many in the *Linea alba*, or at the Side of it, most whereof were in the *Regio Epigastrica*, two or three Fingers Breadth below the *Cartilago Xiphoides*. This Kind of *Herniæ* require the same Attention as the others.

In the Month of *June*, 1725, a Man of sixty Years of Age, complained of a slight Pain in the *Regio Epigastrica*, which he imagined to be a Pain in his Stomach, and increasing, towards the 15th of *August*, he perceived a Tumour on the left Side of that Region. This he probably had
at

at the Beginning of his Disease, without observing it. The Pain diminished till the Beginning of *December*, when a Fever supervened, and the Pain returning at the same Time, the Patient came to *La Charité*, where he was lodged in the Fever Ward, and in ten Days the Tumour came to Suppuration.

I was apprised of this, and having examined him, ordered that he should be removed to the Ward appointed for the Wounded. Good Fortune would have it, that Mr. *Marechal*, first Surgeon to his Majesty, came to the Hospital that Day: I desired him to handle the Tumour, who perceiving a Fluctuation, his Opinion was that it should be opened; but made a bad Prognostick notwithstanding.

I opened the Tumour the next Day, from whence issued about a Pint of curdled *Pus*. This *Pus* was at the Border of the *Musculus Rectus*; and as its Source seemed to be under the Muscle, I divided it a-cross, near its fixed Point, at the Side of the *Cartilago Xiphoides*. By this Means, I discovered a Portion of the *Epiploon* half putrefied, which passed through a narrow Hole, a-cross that Part of the *Aponeurosis* of the Muscles of the lower Belly, that goes under the *Rectus*, to be inserted into the *Linea alba*. My first Incision was parallel to the Cartilages of the false Ribs; then I made another towards the Bottom of the Tumour, which with the first formed a T, and cut off the two Angles.

The *Epiploon* seemed too much putrefied to admit of a Ligature, and believing, since it was suppurated, and a Part of it already dissolved, that the Remainder might do the same, I dressed the Wound.

It proceeded happily enough during a Fortnight; the *Epiploon* suppurated, and fell off by Lumps; the Patient had no Fever, and complained

ed of Hunger; his Pulse was very low notwithstanding. The twentieth Day after the Operation, he took a little Broth in the Evening, and slept well after it; but about Midnight he gave a loud Shriek, which was heard throughout the whole Ward, and died immediately.

I opened the Body, and found that this Part of the *Epiploon*, which appeared in the Wound, was a Portion of that fastened to the Bottom of the Stomach, and supports the Arch of the *Colon*. This Portion had contracted a very strong Adhesion with the anterior Part of the Stomach, below its superior Orifice; and likewise with the *Peritonæum*, in the whole Circumference of that Place where the *Hernia* was formed under the *Musculus Rectus*. The Putrefaction, by Proximity of Parts, was communicated to the Stomach, wherein I found an Hole, that would admit of my Thumb; but this Portion of the adherent *Epiploon* closed it in such a manner, that nothing could pass through it.

R E M A R K S.

In all Appearance, the first Pain the Patient felt in the Month of *June*, was occasioned by this *Hernia*; and the Tumour increasing thro' Neglect, the strangulated *Epiploon* inflamed, and suppurated in the End; whence we may conclude, that the Fever, for which he was brought to the Hospital, was symptomatick, or a Fever attending the Suppuration. The Inflammation of that Part of the *Epiploon* which suppurated, extending to the other Parts of it, that were still within the *Abdomen*, caused those Adhesions, which I found after his Death.

It is very probable, that the Patient might have prevented all these supervening Symptoms by a
proper

proper Bandage. How frequently have we seen *Epiploceles* in the same Place, which have been reduced by the *Taxis*, and cured by a proper Bandage? I have known one upon the same Part, as big as a Walnut, that could not be reduced; yet, by the Application of a soft Bandage, has at length disappeared; either it reduced itself imperceptibly to the Patient, or the *Epiploon*, being pressed by the Bandage, withered and decayed in Time.

I have seen *Epiploceles* forming crural *Hernie*, that could not be reduced, come to Suppuration.

We see others that People have born their whole Lives, both with and without a Bandage, and always unattended with Accidents: Whence proceeds this Difference? In all Appearance, it is the Strangulation that sometimes happens, which causes the Suppuration.

The best Method of preventing all bad Consequences, when the *Hernia* cannot be reduced, is to impede the Augmentation of the Tumour, by wearing a soft Bandage, exactly adapted to the Size of the Tumour, in such a manner, as to restrain its Growth by a gentle Compression.

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*****:*****

OBSERV. LXIV.

Of an Abscess in the Abdomen.

IN October, 1726, a Farmer of *Chaillot*, aged twenty-four, was attacked with a violent Cholick, which had been preceded by others less severe. The first yielded to such Remedies as were exhibited,

bited, but the last was more tedious and acute. It alternately possessed all the lower Belly, often changing its Situation, and always attended with a rumbling Wind that never evacuated. No Discharge backward; but a frequent Vomiting of yellow, green, red, and other coloured Excrements. The Patient was troubled with an Hiccup, his Pulse deep and confined, had cold Sweats, and frequent *Syncopes*.

By these concurring Symptoms we may readily conclude, that there must be an Inflammation in the *Abdomen*, which is always accompanied with Wind, without being discharged either upwards or downwards, till it begins to diminish: An Hiccup and Vomiting are also the common Symptoms of this Disease.

The Surgeon bled him several Times in the Arm and Foot, prescribed Fomentations, Clysters, alterative Broths, and other Remedies he thought proper. The Inflammation seemed to have ceased, and then he was purged with gentle Laxatives, such as *Cassia* Water, *Manna*, &c. Nevertheless, he still complained of a fixed Pain in the right *Hypochondrium*. Moreover they perceived a Tumour, of a moderate Size, which changed its Place, appearing sometimes in the Groin, sometimes in the *Regio Umbilicalis*, and at another in the right *Hypochondrium*. At length the Tumour fixed in the *Regio Lumbaris dextra*, anticipating a little upon the *Hypochondrium* on the same Side. At this Time the Patient was sent to *La Charité*, where Mr. *Phiron*, the Surgeon, under whose Care he had been, gave me an Account of his Distemper, nearly in the same Words as I have described it.

It appeared to be a circumscribed Tumour; but it was difficult to be certain of its true State, since the Consistence varied from one Day to another;
a Fluc-

a Fluctuation was perceived one Day, and the next nothing but a considerable Hardness, which seemed as though it would determine by an Induration. Uncertain of Nature's Choice in the Termination of this Tumour, I prescribed emollient Cataplasms, being convinced that they could not, in any manner, disturb the Course of Nature, if it was disposed to suppurate. The Tumour grew softer Day after Day, and then resumed its former Hardness; therefore I altered my Method, and substituted the *Emplastrum Diachylon cum Gummis*, instead of the Cataplasms.

The Tumour remained a whole Week as hard as usual, and then the Patient was attacked by a slow Fever, that subsisted another Week: I looked upon this as a Symptom of the Fermentation of the Matter contained in the Tumour, which Fermentation being slow, could only occasion a slow Fever; and, for a contrary Reason, large Suppurations, that are soon determined, are always attended with more acute Fevers.

In eight Days the Dartings were more considerable: At length the Tumour grew soft, without any excessive Pain; and I felt a confirmed Fluctuation, though very deep.

I applied the *Lapis Infernalis* to it, not only to destroy a Part of the Teguments, but to raise a more active Fermentation in the Tumour; it being the Property of Caustics to maturate the Pus contained in them, at the same Time that it destroys the Teguments.

When the *Lapis Infernalis* had performed its Office, I thrust the Point of my Bistoury through the Eschar, into the Cavity that contained the Pus, which discharged a large Quantity of ill-scented Matter. It appeared to me, that the *Epiploon* was the Basis upon which the Pus was founded, and
thought

thought I knew it by its Inequalities, being so thick in some Places, and so thin in others, that I could thrust my Finger through it, and feel the Softness of the Intestine. Perhaps it had contracted an extensive Adhesion with the *Peritonæum*, round the Circumference of that Part where the Matter was formed, by Means of the Inflammation that was antecedent to the Suppuration ; for I could perceive no Vacuity with my Finger. The Patient was dressed with animated Digestive, till the Separation of the Eschar made by the Caustic ; which being compleated, he was dressed with Mundificatives. The Wound was mundified with Difficulty, on account of the *fungous* Flesh, which I was every Day obliged to destroy with different Caustics. At length it perfectly healed, and the Patient went from the Hospital in seven Weeks.

You may, perhaps, be amazed at what I said before, that I had no sooner made the Opening, but thought I perceived the *Epiploon* at the Bottom of the Tumour : Methinks an anatomical Surgeon ought to speak more affirmatively. I could have affirmed it, and should, had the *Epiploon* been found ; but had this been, it would have formed no Abscess ; but the Abscess being formed, it is not surprizing there was some Difficulty in distinguishing it. Nevertheless, the Softness of the Intestine, which I felt underneath, the Hardness that was above, and at the Sides, the preceding Symptoms, all these pronounced it the *Epiploon*. For what Part is there in the *Abdomen*, so near the Muscles, and more capable to change its Situation, than the *Epiploon*, which is only fixed in its superior Part.

You may, perhaps, say, How can the *Epiploon* suppurate, without the *Pus* being lost in the *Abdomen* ? I think that the distempered *Epiploon*, by
being

being inflamed (for it is susceptible of Inflammation like other Parts) that the *Epiploon*, I say, is rendered adherent on both Sides to the Intestines and *Peritoneum*, in the same manner as the Lungs become adherent to the *Pleura*. From whence I conclude, that it was the *Epiploon*; and that in such Abscesses, the *Pus* ought to be evacuated as soon as it is formed; for want whereof, the Basis will soon be pierced, being much thinner than the Muscles of the *Abdomen*, or the Teguments.

A N O T H E R.

TH E late Mr. *Canée*, the Surgeon, had a Distemper sixteen Months before his Death, accompanied, almost, with the same Symptoms as those I have just described. The Tumour terminated by Induration, and I saw him four Months after his apparent Cure at *Paris*.

Having given me an Account of his Distemper, he desired I would examine his Belly; where I felt, not a round hard Tumour, like those that are schirrhous, and formed in the *Mesentery*; but a flat Hardness, extending over the whole *Abdomen*, thicker in one Part than another; which would yield to be pressed on one Side or the other, like a Plank floating upon the Water.

Although he was cured in Appearance, he was gradually emaciated. I cannot pursue the Account of his Distemper any farther, as he left *Paris*, and died in eight Months. I was not informed of his Death till some Days before, and am uncertain whether he was opened or not; but by the flat Hardness of the Tumour I had felt, I always judged it to be the *Epiploon* that was become schirrhous.

A N-

A N O T H E R.

IN the Month of *February*, 1727, whilst I was busy at *La Charité*, a Nun informed me there was a Patient in *St. John's Ward*, who discharged *Pus* by the Navel. I went to visit him, and by pressing gently upon his Belly, the *Pus* sprung above half a Foot high. The Nun told me, that an Inflammation in the Belly, with violent Cholicks, and all such Symptoms as are inseparable from Suppuration, preceded this Accident. He was in so deplorable Condition, that I thought the Art of Surgery could afford him no Assistance, and accordingly he died the Night following.

I opened his Body, and found the *Epiploon* much wasted, inflamed, and adherent to the *Peritonæum* in every Part, and to the Intestines, even to their Anfractuosities. *Pus* was lodged in many Places, between it and the Intestines that were mortified, which appeared like so many distinct Abscesses; and a large Quantity was contained under the Navel, where it had contracted an Adhesion with the *Peritonæum*. The Vacuity containing it, was four Fingers Breadth in Diameter; and from hence the Matter sprang.

R E M A R K S.

The principal Object that offers in the sixty-fourth Observation, is an Inflammation of the *Abdomen*, possessing, in all Appearance, the *Epiploon*, and the intestinal Canal; which Inflammation occasioned their reciprocal Adhesion. By the Care that was taken of the Patient, the Inflammation of the intestinal Canal was entirely calmed, and that
of

of the *Epiploon* only in part, since it impostsomated, in its Point of Adhesion with the *Peritonæum*.

In the third Observation upon the same Subject, the Inflammation had its free Course, and destroyed the Parts, since the Intestines were mortified, and the *Epiploon* had suppurated.

Hence the Inflammation ought to be the principal Object of our Care, since it is attended with such fatal Consequences: And it is to be wished, that we were soon enough consulted by the Patients, and that their Constitutions would admit of frequent Bleedings, and other Remedies to give a Check to its Progress.



O B S E R V. LXV.

Of a Tumour between the Peritonæum and the Muscles of the Abdomen. Communicated by Mr. Tavernier, sworn Surgeon at Paris.

A Gentlewoman; twenty-eight or thirty Years of Age, being troubled with a Tumour situated in the *Hypogastrick* Region, near the *Matrix*, reposed a Confidence in the pretended Capacity of an Empirick; who, after he had amused her for the Space of eighteen Months, without preventing the Progress of the Tumour, found Means to leave his Patient, by advising her to marry, giving her strong Assurances that she would recover after bearing the first Child. She was accordingly married, but had no Child; and as the Tumour increased, insomuch as to extend throughout all the

the Regions of the *Abdomen*, she applied to the late Mr. *Arnaud*; who, upon Examination of the Tumour, declared it to be humoural. The Fluctuation, which was plainly to be felt, afforded no Room to doubt of a Collection of some Fluid. He perforated it with the *Troisquart*, and the *Lymph* that issued from it in a large Quantity, was more yellow and glutinous than that in the *Ascites*. The Patient was so well satisfied with this Puncture, that she never hesitated to submit to it, whensoever the Weight and Plenitude of the Tumour convinced her it was necessary. At length, this Operation became so familiar to her, that being under a Necessity of going a Journey a hundred Leagues from *Paris*, where she was obliged to stay some Time, she had the Precaution to guard herself with a *Troisquart*, which was three Times successfully used by the Surgeon of the Place.

At her Return from this Journey, she was attacked with a Fever, and very acute Pains in the *Abdomen*, attended with a Discharge of bad Urine. Alarmed at this Change, she sent to Mr. *Arnaud*, who finding that the Tumour was filled, and reflecting likewise that the Fatigue of her Journey might occasion these fresh Symptoms, was of Opinion, that the Puncture, though necessary, with regard to the Plenitude, ought to be deferred some Time, till by the Benefit of Repose, and such Remedies as he should prescribe, she was restored to her former State. This prudent Advice was not prosecuted, the Progress of the Symptoms not permitting. Therefore the Puncture could not be postponed; which was followed by the Discharge of a Fluid like Milk. This gave Occasion to some Assistants, who were present, to believe the Case an *Hydrops Chili*; but they returned from that Error the next Day, when they found a very foetid Pus, which
had

had blackened the Silver Porringers, in which the Fluid had been preserved. The same Day Mr. *Arnaud* examining the *Abdomen*, touched the *Cystis* with Ease; which added to the Quality of the *Pus* discharged, made him conceive the Possibility of a more efficacious Operation, or, at least, the Necessity of Injections, when the Tumour re-appeared.

The Tumour filled again five Months after the Puncture; and Mr. *Arnaud* being dead, I was called in, and examined the Tumour, which I found very deep, and accompanied with a considerable Fever; the Pains were likewise as acute as those she felt before the last Operation. The Urine, which was laudable before, was intirely changed, and the *Cutis*, with the *Membrana Adiposa*, seemed in no Manner concerned; nevertheless, the Fluctuation being so very manifest, I judged the Tumour in a Condition to be opened. I proposed either the Incision, or the Puncture; but this Gentlewoman, who had been so complying before, altered her Sentiments on a sudden; being advised by her Neighbours, she hesitated upon my Opinion, and though she had been deceived by an Empirick before, had Courage enough to deliver herself into the Hands of another, who promised to cure her without Operation. I observed to her the Uncertainty of such a Promise, and the Hazard she ran by deferring the Aperture: I even declared, that the Tumour appeared intirely disposed to break inwardly, by which Accident she must inevitably perish. The Patient was prepossessed, and the Empirick's Promise flattered her too much, not to submit to his Advice. Thus the Opinion of her Neighbours prevailed before mine: I withdrew, and the Empirick took Possession of the Patient; but too sudden a Death disappointed his sordid

Views, the Patient living only seventeen Days under his Hands.

I was sent for to open the Body, and found my Prognostick just. The *Cystis*, which was situated between the Muscles of the *Abdomen* and the *Peritonæum*, had opened in two Places on the Inside, which had occasioned a considerable Expansion of very foetid *Pus* ; and though it had not remained long, had already altered some of the Intestines ; the rest of the Parts appeared in their natural State.

R E M A R K S.

It is easy to conclude, from the present Observation, that deep Abscesses, in the Neighbourhood of one of the three *Venters*, cannot be managed with too great an Attention and Care. In the *Thorax*, the Delay may perhaps be less dangerous than in others, because the Inconveniencies may be repaired, by the Operation for the *Empyema* : But in the lower Belly, Art not yet having furnished us with a Method of discharging the Matter expanded, it is much more proper to open the Bags that contain it, even before it comes to Maturity, than to expose a Patient to the same Fate, as this Gentleman, who is the Subject of the present Observation.

Methinks, one useful Reflection may be still added to this Observation, communicated by Mr. *Tavernier*.

Whilst the Tumour was indolent, it discharged only a clear Lymph, and when it became painful, it discharged a *Pus*, which could certainly proceed from no other Part than the Sides of the *Cystis* which had suppurated. Therefore we may understand what Method ought to be taken, from the Quality of the Fluid evacuated, and pronounce, that

that a simple Puncture cannot answer, but in Tumours mere lymphatick ; whereas those which contain a thick *Pus*, ought to be opened by a cutting Instrument.

But how shall we divine what the Quality of the Fluid is that fills the Tumour ? In the present Observation it appears, that nothing but *Lympha* was found in the Tumour, whilst it was indolent, and *Pus* when it was painful. Therefore it is the Pain or Indolence of the Tumour that indicates the Quality of the Contents, which once known, the Method to evacuate it is easily discovered.



O B S E R V. LXVI.

Of an Abscess in the Membrana Adiposa.

W H E N we cannot, morally speaking, hope for a perfect Cure in a Chirurgical Case, we ought, at least, to place it in Nature's Power to relieve herself, and render the Disease as supportable to the Patient as possible. It depends upon the Genius of the Surgeon to make a proper Use of the Circumstances, without deviating from the Indication he proposes to prosecute. The following Observation will furnish us with an Example.

A Gentlewoman, aged thirty-five Years, of a good Habit of Body, in 1695, had a considerable Abscess in the *Regio Lumbaris dextra*, which was opened two Fingers Breadth from the transverse *Apophyse* of the second *Vertebra* of the Loins, reckoning from above downward. This Abscess hav-

ing suppurated some Time, a Stone came from the Wound of the Bigness of a Pea, upon which the Patient recovered, and grew fat.

In 1709 she felt a Pain in the same Part where the former Abscess had been formed; a slight Inflammation followed, surrounding the former Cicatrice, and a Fever supervened, accompanied with irregular Shiverings. Being uneasy, she had Recourse to my Opinion, and informed me of what had passed during the first Accident.

That Account, together with her present Condition, made me apprehend the Formation of another Abscess. I bled her, and prescribed a proper Regimen. The Fever increased notwithstanding; the Shiverings became more frequent, and always irregular; the Inflammation augmented at the same Time, and the Patient felt a deep painful Pulsation.

I no longer doubted of a Suppuration in the *Membrana Adiposa*, and made use of emollient Cataplasms to accelerate it. The third Day, feeling a Fluctuation, although the Matter was deep, I opened the Tumour, three Fingers Breadth transversely, on the Side of the former Cicatrice, from whence issued a Quart of well-conditioned *Pus*. I thrust my Finger as far as I could into the Wound, and not feeling the Bottom of the Cavity, I dressed it with tied Dossils, lest they should be lost at the Bottom.

From this Time, to the Removal of the first Dressings, as much *Pus* was discharged as at first, which probably proceeded from the *Sinus's* that were formed in the Fat of the Loins. The Situation of the Patient, who had lain part of the Night upon the Wound, had favoured this Evacuation, by affording a Declivity to the Matter. I dressed it gently with Digestive, and the Suppuration being
very

very copious, renewed it twice *per* Day, using deterfive Injections, with *Aq. Hord. & Mel. Ros.* at each Dressing. The Injection, which was at least half a Pint, did not return without removing the Patient on one Side; a certain Proof, that the Cavity was below the Aperture when the Patient was sitting.

The Depth of the Cavity, whose Bottom remained the same, while the external Orifice grew daily narrower; the Suspicion I had that some fresh Stone having altered and impostumated the Kindney, occasioned the same Kind of Suppuration which had happened before, when Nature, of her own Accord, had thrust out the extraneous Body: All these Considerations together, made me resolve upon a palliative Cure.

To make myself Master of a Discharge for the *Pus*, or of a Stone, if Nature should cast one off, I put a Silver *Canula* into the Wound, as thick as my little Finger, a little flatted, and about two Inches long, according to the Measure I had taken with my Probe. I ordered two flat Ears to be made to it, which were perforated in such a manner, that the *Canula* might be kept in the Wound by Means of a Girdle. This *Canula* afforded a free Passage to the Matter, and for my Injections. I covered it with sufficient Compresses to half a Porringer of *Pus* that was discharged at every Dressing; and then had another made, to change them alternately, while one was cleaning.

Twelve Months passed without the least Alteration; and as the Patient went into the Country, and returned to *Paris* without any Inconveniency, I saw her only sometimes, being dressed by her Servant in the manner I had directed. It is to be observed, that during this Year the Patient grew prodigious fat.

At the Expiration of this Term, they sent to acquaint me, that she felt very violent Pains ; that nothing had passed through the *Canula* for three Days, and that the Injection would not enter. I went and found her in a considerable Fever, the Wound dry, and a little *Pus* in the Urine, which had not happened before. I introduced my Probe through the *Canula*, and found the Extremity of it entirely stopped. As the *Pannicula Adiposa* had at least acquired an Inch in Thickness this Year, more than when the *Canula* was first introduced, it was no longer proportioned to the Depth of the Ulcer ; the Fat had corked up the Extremity, and the *Pus* was collected for want of a free Passage ; an Accident I did not foresee.

Being very certain that these Symptoms proceeded from a Detention of *Pus* that ought to be evacuated, I took a strait long Probe, strong, and not too blunt, and introducing it into the *Canula*, I pierced through the Fat that stopped the Extremity of it, to the Place where I knew the *Pus* was lodged, and discharged almost two Pints.

That I might not lose this Path, I ordered a Servant to hold it, while I formed a Leaden *Canula* three Inches long, which I introduced over my Probe, instead of the Silver one I had withdrawn, and ordered another of Silver to be made by the same Pattern, as it was most commodious.

The Symptoms ceased, and all Things proceeded as they had done before this fresh Accident ; but in six Weeks, a little Inflammation, with Hardness, appeared on the anterior Part of the Thigh, on the same Side, four Inches below the Groin ; upon which I applied a Cataplasm of Bread and Milk. This Inflammation spread to the Bigness of a Crown, in three Days, without much Pain ;
then

then perceiving a Fluctuation, I opened it like a simple Abscess.

In raising the first Dressing, I perceived a little Hole at the Bottom, from whence issued three or four Drops of *Pus*, by pressing above the Wound; and though the Probe introduced, penetrating only a Finger's Breadth, I presumed it might be the Consequence of the Abscess in the Loin, and that there was a Communication between them.

I put a Piece of prepared Sponge into the Hole to dilate it, and, the next Day, introduced my Probe a little farther. I continued thus to advance by Means of Bougies, contrived of waxed Linen rolled up, which I made thicker and longer, in Proportion as I made a Progress: At length I reached very near the Loin; then the *Pus* evacuated freely; one Part of it by the *Canula*, and the other by the new Passage I had made.

Being convinced that this was only one Abscess, with two Orifices, one in the Loins, and the other in the Thigh, I endeavoured to pass a Seton from one to the other; but not succeeding in it, I left the *Canula* in, and continued the Use of the Bougies, which were now fifteen Inches long, and as thick as a Goose Quill; and being soft and pliant, they were no Obstacle to the Motion of the Thigh, nor any Inconveniency to the Patient. Part of the Injections made by the *Canula* came through the Path for the Bougie. In a short Time I left the Management of the Injection and Bougie again to her Servant. This Contrivance was attended with all imaginable Success for fifteen Months, the Patient acting as though she had no manner of Complaint.

At the Expiration of this Time, the Suppuration ceased on a sudden, although the two Passages were free; a *Metastasis* of the *Pus* happened upon
the

the Lungs. The Patient spit a Part of it as soon as she was attacked with a *Dyspnea*, and was suffocated in thirty-six Hours.

I opened the Body, and found the whole *Abdomen* stuffed with a prodigious Quantity of Fat. My first Care was to examine the Kidney where the Distemper had been; which I looked for in vain; for it had been dissolved by the Suppuration, and I could not find the Remainder of it, but by the Help of the Bougie thrust again into the *Sinus*. The Kidney was now only a small Bladder, as big as a small Nut, and as thick as Parchment, containing a dark-coloured Stone broke asunder, and resembling the half of a Plumb Stone.

The Distance between this Bladder, and the Extremity of the *Canula*, was about an Inch, and a callous *Sinus* maintained the Communication between them. The Extremity of the Bougie was lost in the Fat before this Bladder. I found no considerable Vacuity round it, but Numbers of small *Sinus's*; the Fat being callous in one Part, and soft in another.

The *Pus* had made a Passage into the cellular Texture of the *Peritonæum* to the Groin, and then proceeding under what we call the *Ligamentum Fallopiatum*, into the Fat surrounding the Vessels, it had spread into the *Pannicula Adiposa*, which was near three Fingers Breadth thick, and approached the Skin. All the other Parts of the *Abdomen* were in good Condition.

Then I opened the *Thorax*, and found no Expansion of Matter in the Cavity: But all the Vesicles of the Lungs, on both Sides, were filled with a white *Pus*; part whereof, that could not be expectorated, stopping the Motion of Respiration, was the Occasion of so sudden a Death.

REMARKS.

An extraneous Body may lodge many Years in a Part without being perceived, provided the Surface is smooth and polished, and does not irritate the Parts it touches. But should it increase, or if its Inequalities should by any Motion prick or lacerate the Parts, this occasions an Inflammation, and Suppuration; which being once formed, never ceases as long as the extraneous Body remains in that Part.

A Stagnation of *Pus* may be the Cause of infinite Ravages; whether in the neighbouring Parts, from its Proximity, by forming considerable *Sinus's*; whether in remote Parts, by a *Metastasis*, as in the present Case; or in the Blood, by the Reflux of a small Quantity of *Pus*, it occasions slow Fevers, or a *Diarrhæa*, which often destroys the Patient.



OBSERV. LXVII.

Of a Collection of Pus in the Regio Lumbaris.

WHEN we perceive a Fluctuation of *Pus* collected in a Part, there are certain Signs by which we may know whether it was formed in that Part, or proceeded from another. If the Fluctuation has been preceded by any violent Symptoms, such as an acute Fever, a scorching Heat where the *Pus* declares itself, with Pain, Tension, and Pulsation; if, moreover, it is accompanied with an Inflammation upon the Skin, the *Pus* is

is certainly formed in that Part. Such a Tumour may justly bear the Title of an Abscess; but if the Place where the Fluctuation is manifest to the Touch, neither Pain, Heat, nor Pulsation have preceded, and the Colour of the Skin is unchanged, in all Appearance the *Pus* is derived from some other Part, and that there is a remote Source from whence it flows, in proportion as it is formed. This second Sort of Tumour cannot properly be termed an Abscess; I shall call it a Collection of *Pus*, and always make a bad Prognostick upon it; since, in such Cases, I have generally found some carious Bone near the Place from whence the Matter proceeded.

In the Beginning of *July*, 1726, a Lad aged Eighteen, was attacked with a Stitch in his Side, accompanied with very acute Pains. This subsisted for the Space of three Months, at the End whereof, feeling little Pain, he got behind a Coach, which shook him to that degree, during the whole Day, that his Pain returned. It increased the next Day, and extended to the right Groin, where it was very violent, and at length came to that Height, that he could not move. This was quieted by Repose, and entirely ceased in three Weeks.

In a Month's Time, as he rose in the Morning, he perceived a Swelling in the *Regio Lumbaris*, upon the posterior Part of the *Os Ilion*, towards the Origin of the *Musculi Glutæi*. The Tumour, which had insensibly augmented, was already become as big as my Fist; he felt no Pain in it, neither was there any Inflammation upon the Skin. He took it at first for a Wen; and many others might have been deceived besides himself, because he felt no Pain when it was touched; nevertheless, you might distinguish a sensible Fluctuation. He shewed the Tumour to his Master, who advised him
to

to compress it with a Plate of Lead, to prevent its Growth. Having made use of the Lead about a Fortnight, he threw it away, because it was incommodious. I am not in the least surprized at this; for since the Tumour was not a Wen, but a Collection of *Pus* proceeding from a distant Part, the Compression drove the *Pus* towards its Fountain, where it formed *Sinus's* on all Sides at the same Time. Having removed the Plate, he felt no more Pain, and worked at his Employment, without thinking to apply any Remedy to it.

At length, in the Space of two Months, perceiving a slight Inflammation, and a little black Spot at the Point of the Tumour, he came to *La Charité*.

By the Account he gave me of his Disease, by the Inspection of the Tumour, by the Examination of his Pulse, denoting a slow Fever, and by the Experience I had of this Kind of Tumour, I neither took it for a Wen nor an Abscess, but for a Collection of *Pus* that was furnished by some *Caries*, without knowing from what Place; and tho' there was a Necessity to open the Tumour, I thought it improper, without preparing the Patient, because I apprehended a bad Disposition of the Blood.

He was twice bled, being young and replete, and twice purged. During this Time, the Swelling burst in the Night, and discharged abundance of *Sanies*. The Tumour being emptied in Part, I found the Teguments very much decayed the next Morning, and enlarging the Wound, I opened those *Sinus's* formed by the Detention of the *Pus*, cutting off some of the Angles, that the Wound might be more easily dressed. A very large Quantity of foetid *Sanies*, of a bad Colour, was likewise discharged by the Operation.

Upon

Upon removing the first Dressing, it appeared to me, that the *Pus* came from a considerable Distance, above the superior Part of the *Os Ilion*; and by inspecting the Dressing, which looked very black, it seemed manifest, that there was a large *Caries* in some Part or other.

The Patient's Bed was inundated with *Pus*, from one Dressing to another; therefore I resolved only to leave an Opening for a free Discharge of the Matter.

We went on tolerably well for some Time; but, in the Space of a Fortnight, a Shivering supervened, followed by a Fever: A few Days after, I perceived another Tumour in the *Regio Lumbaris sinistra*, where the Fluctuation soon became sensible. I presumed, that this second Tumour proceeded from the same Cause as the first, and that there was a *Caries* on this Side; therefore I only made an Incision, to give a free Passage to the Matter. It discharged at least two Porringers of sanious foetid *Pus*, and, at every Dressing, half a Porringer, which infected the neighbouring Patients. A slow and continual Fever, added to the large Suppurations, soon conducted the Patient to his Grave, and he died the 28th of *February*.

I opened him, and found a *Caries* possessing, almost, the whole internal Surface of the *Ossa Iliæ*, on the superior Part, and all the Border of those two Bones in the posterior Part, penetrating into their spongy Texture.

The *Pus* had formed a Cavity between the *Péritonæum* and the *Musculus Transversus*; then, piercing that Muscle, the *Triangularis*, and the *Aponeurosis* of the *Dorsalis Major*, it passed under the Skin.

R E M A R K S.

The Bones being carious in this Distemper, the *Periosteum* that covers them must consequently be destroyed. It is difficult to decide, whether it was the Distemper of the Bone, causing an *Erysipelas* in the *Periosteum* and *Peritonæum* that occasioned them to suppurate, or whether it was a Distemper in those Membranes which occasioned the *Caries* of the Bone: Nevertheless, without deciding the Question, I believe the Disease was originally a Rheumatick Humour, which attacking the *Periosteum* and cellular Texture of the *Peritonæum*, created an *Erysipelas*. We are very sensible, that an *Erysipelas* in membranous Parts, often terminates in their Putrefaction; so the Surface of the Bone became carious by the Putrefaction of the *Periosteum*, from whence the *Caries* penetrated to the Center of the Bone. This Putrefaction formed a kind of *Pus*, which, for want of being discharged, collected by Degrees, and spreading into other Parts by its Gravity, made fresh Collections, remote from the Place where it first begun.

It may be asked, Why I refuse to call every Tumour containing *Pus* an Abscess, since other Authors have not made that Distinction?

To answer this, I think it necessary to make use of the Difference between a *Phlegmon* and an *Erysipelas*. An *Erysipelas* is an Inflammation of membranous and *Aponeurotick* Parts, and is generally confined to them, being more or less painful, according as the distempered Membrane or *Aponeurosis* is more or less distended. If the *Erysipelas* does not discuss, the Membrane falls into Putrefaction, which forms an Ulcer rather than an Abscess, whose Suppuration is not attended with the same
Symp-

Symptoms as a *Pblegmon*. This is what produces those Collections of *Pus* in the End; which I cannot call Abscesses; Collections that are only formed for want of a free Discharge of the Matter.

In a *Pblegmon* there is not only an *Erysipelas* of the Membranes comprehended in the Tumour, but all the *carnous* and *ædipous* Parts are concerned; the Circulation is stopped in some *sanguiferous* Vessels, retarded in others, and what was only an *Erysipelas* in the Membranes at first, becomes a *Pblegmon*; and that general Disturbance in the Part is what produces the Tension, Pain, and Pulsation; Symptoms by which it is characterised. In short, this Tumour often terminates by Suppuration, and is what I call an Abscess.

That Patient deserves Compassion, who is not within the Reach of a Surgeon when he is attacked by either of these Distempers.



O B S E R V. LXVIII.

Of an Abscess in the cellular Texture of the Peritonæum in the Regio Illiaca.

IN whatsoever Part a Surgeon feels a Fluctuation of *Pus*, he ought to procure its Evacuation, unless there be some Contra-Indication opposing it, or that the Operation is impracticable.

A Man was brought to *La Charité* the 28th of June, 1728, who, about the twelfth Day of the Month, had taken an Emetick, to which he was advised for some Complaint. The Emetick had operated, and, in straining to vomit, he felt an acute
Pain

Pain above his Groin. The next Day he perceived a slight Inflation in the spermatick Vessels, and, sometimes, a sluggish Pain, with a little Darting. This was soon followed by an Hardness in the spermatick Vessels, extending from the *Testicle* to above the Ring of the *Obliquus Externus*.

They had used emollient and discutient Cataplasms, by which Means the Hardness seemed to diminish, and the Patient found himself relieved; but this did not long continue, the Hardness being more considerable, and the *Testicle* more swelled the third Day. In this Condition he came to *La Charité*.

I ordered him to be bled three Times, and prescribed a severe Regimen. A Fever supervened notwithstanding, with violent Pains over that Side of the *Abdomen*, extending upwards to the Armpit, and even to the Neck.

The 25th of *August*, I imagined that I felt a Fluctuation in the internal Part of the *Os Ilion*; this was the Place where the Pain was most acute, and even by the Nature of the Pulse, I could perceive that Matter was forming in some Part or other; but the Fluctuation was not sufficiently distinct to determine me to open it. Nevertheless, the Patient grew worse, his Strength sensibly diminished, and he had a Sort of sluggish *Delirium*; for he sometimes spoke Absurdities. At length his Head was entirely confused, insomuch that they were obliged to tie him. The 7th of *September* I thought I perceived a Fluctuation distinctly, notwithstanding the Depth of the Abscess; at this Time we had a Consultation upon his Case, not so much to judge whether the Aperture was necessary, as to screen myself from Reproach; the Patient appearing so little able to support it, that he seemed to be dying every Moment. It was resolved in

the Consultation to do nothing, looking upon the Aperture as useless, considering the State of the Patient.

I found him neither better nor worse in the Afternoon: Then I began to reflect, that I should have Reason to reproach myself if he died, should I make no Attempt to save him. I came to a Resolution, and opened the Abscess, notwithstanding the Result of the Consultation; being first well assured where the *Pus* was lodged, and discharged half a Porringer of very foetid Matter. I could not extend my Incision far towards the *Pubis*, the *Pus* having wasted the cellular Texture of the *Perritonæum*, and reached to the Bottom of the *Pelvis*, towards the *Vesiculæ Seminales*, pursuing the Course of the *Vasa Deferentia*.

Next Day the Patient was more quiet, and his Pulse not irregular. Having first discharged as much *Pus* from the Bottom of the Wound as I could at each Dressing, I distilled a few Drops of *Bals. Viride* into it, filling the Cavity with Dossils, dipped in simple Digestive.

The Wound proceeded happily enough; but the fourteenth Day his Pulse grew quicker, the Flesh not so florid, and a little relaxed, and the Suppuration more abundant; which was occasioned by an irregular Diet, the Patient having Provisions sent him from abroad. They took care of this for the future, and the Symptoms were fortunately suspended by a regular Diet. The twenty-fourth I found an Hardness at the Circumference of the Ulcer; and ordered emollient Cataplasms, without changing any Thing in the Course of the Cure. From this Time the whole took an happy Turn, the Cicatrice formed, and the Patient went from the Hospital the 5th of October, 1728.

We may conclude from this Observation, that the bad Condition of a Patient, attacked by a Disease, incurable without a Chirurgical Operation, ought not to prevent the Surgeon from performing it: That besides, when he makes his Prognostick, and satisfies the World that there is no other Resource than the Operation, altho' it be uncertain, he ought to do his Duty, without fearing the Imputation of a fruitless Undertaking.

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OBSERV. LXIX.

Of a Collection of Pus, attended with a Caries on the left Side of the Loins.

ON the 12th of November, 1726, a Child was brought to *La Charité*, who had a round Tumour, about sixteen Inches in Circumference, and elevated five or six Fingers Breadth, upon the *Regio Lumbaris sinistra*, near the *Spina Dorfi*. The Child had the Small-Pox three Years before, of which he recovered; but from that Time he was always troubled with a slow Fever, and had felt a Pain in the *Spine*, towards the Juncture of the last *Vertebra* of the Back with the first of the Loins. The Pain was generally slight; but acute when he sat down or rose up. The Mother informed me, in her Account of the Distemper, that the Tumour I saw had appeared only six Weeks before, and had insensibly increased ever since without Pain; that within eight Days past, the Child having strained

R 2

itself,

itself, he fancied he felt a Rupture in the Groin on that Side.

Tho' the Fluctuation in the Tumour upon the Loins was very manifest, I could hardly believe it an Abscess, because the Colour of the Skin was not changed; that moreover the Mother, in her Account of the Distemper, took no Notice of any Symptom of Suppuration. However, the Tumour was filled with *Pus*, tho' it was not formed in that Part, as we shall see hereafter.

At first Sight the Tumour might be taken for an humoural Wen; and the rather, because a Sort of *Cystis* was distinguishable under the Skin, in which the *Pus* was contained; and it was evident that it could not be cured without an Operation.

I pinched the Skin in the most prominent Part, together with my Assistant, in order to open it, and then proposed to act according to the Kind of the Distemper; that is to say, either to divide the Tumour, or to take it intirely off without opening the *Cystis*. I opened the Skin with my Bistoury, which being very much wasted, I opened the *Cystis* at the same Time, from whence proceeded an Ocean of *Pus*: I made the Incision crucial upon my Finger, and amputated the four Angles; and observing that a large Quantity of *Pus* issued from an Opening that was in the *Musculi Lumbares*, and putting my Finger into the Hole, which was considerably large, I fancied that I reached to the *Membrana Adiposa*, or at least very near it.

This *Sinus* was of an Extent sufficient for the Discharge of the *Pus*; therefore I dressed the Patient without dilating it. A proper Regimen, and generous Remedies, were not omitted; but notwithstanding our Care, the Patient died the eleventh Day after the Operation.

I opened

I opened him, and found the Body of the last *Vertebra* of the Back, and the transverse *Apophyses*, carious. This was, probably, the Place where the first symptomatick Tumour was formed, *phlegmonous* or *erysipelalous*, accompanied with, or followed by a *Caries*. The *Pus* having no free Passage, and the Quantity increasing daily, it flowed along the *Musculus Psoas*, into the cellular Texture of the *Peritonæum*, between that and the *Musculus Transversalis*; from thence it passed by the *Triangularis*, and formed a Cavity under the *Aponeurosis* that terminates the *Dorsalis Major*: It was this *Aponeurosis* that seemed to make the *Cystis* of the Tumour; for here the *Pus* had dissected, and separated, by degrees, the *Aponeurosis* from the Muscles it covers. According to this Account, we must not be surprized that the Tumour was indolent, and the Skin unaltered.

Another Portion of *Pus* followed its natural Declivity, without passing through the Hole in the *Musculus Transversalis*; and flowing along the internal Surface of the *Os Ilion*, always in the cellular Texture of the *Peritonæum*, was to be felt in the Groin under the *Ligamentum Fallopiæ*, by the Strain the Child had made; which is what the Mother looked upon as a Rupture.

This is not the only Ravage the *Pus* made that distilled from the *Caries*; one Part of it having passed behind the Body of the *Vertebrae*, between the *Apophyses Spinales*, and the *Obliquæ Inferiores*, had formed a Sort of Canal in the right Side of the Body of the Muscle *Psoas*, even to its Insertion with the *Trochanter Minor*.

Many Inferences may be deduced from this Observation: First, in those Suppurations where the *Pus* has not a free Discharge, you must not be amazed, that the Patient is troubled with a slow

Fever, as this Child was from the Time he had recover'd of the Small-Pox: Without Dispute, some Part of the *Pus* is continually pumped back, and enters the Mass of Fluids; where being confounded with them, it disturbs their expulsive Faculty, not being analagous to them. But perhaps you will say, Can Matter return into the Blood without causing Shiverings, which accompany and denounce the Reflux of purulent Matter? To answer this, we must explain what *Pus* is.

Pus is only the *Succus Nutritius* of the Parts, which, instead of pursuing its Course, falls into the Wound; as soon as the regular Course of this *Lympha* is retarded, or stopped at the Circumference of the Wound, I call it *purulent Matter*; as soon as it is fallen into the Wound, I call it *Pus*.

When the Course of this *Lympha* is stopped at the Circumference of the Wound, it ferments in the Vessels by stagnating, and undergoes various Changes before it becomes *Pus*. If while it ferments, one Part of it taking the natural Course of the Fluids, mixeth with the Blood, its Mixture is attended with Shiverings; because not having completed its last Degree of Fermentation, it ferments afresh with the Blood, in a Manner not homogeneous to it. Hence it causes Abscesses in the *Viscera*, where it stops, being disposed to become *Pus*; this is what we call a Reflux of purulent Matter. But when the *Succus Nutritius* has acquired its last Degree of Fermentation, whether it be in the Vessels themselves at the Circumference of the Wound, whether in the Wound itself, or whether in the Cavity wherein it flows, it is no more than a *Caput Mortuum*. If then a Portion of it reflows into the Blood, it ferments no more, and consequently cannot occasion the same Disorders as the Return of purulent Matter. There is an extraneous Fluid nevertheless,

vertheless, that must of Necessity disturb the expulsive Faculty, which renders the Blood an animating Liquid, capable of circulating freely, and of nourishing the Parts. It is from the Consequence of this Disturbance, that those Patients who have a Collection of *Pus* in any Part, which stagnates, are attended with a slow Fever, and decay insensibly.

The second Inference to be drawn from this Observation, is, that a Collection of *Pus*, in any Part, does not raise a painful Tumour, unless it be formed in that Place. Therefore, when you perceive *Pus* collected in a Part, without creating Pain or Alteration in the Colour of the Skin, the Source of it is to be sought some where else.



O B S E R V. LXX.

Of a Suppuration after the Small-Pox.

DEATH is generally the End of those Patients who have a profound *Caries* after a Malignant Fever. This *Caries* more commonly attacks those Bones that are spongy, than such as are hard and compact; and I have observed, that it penetrates to their very Centers. It is most probable that the Distemper begins with an *Erysipelas*, and even by a Putrefaction of the *Periosteum*, or by the Membranes lining each of these Cells of the Bone; and the Impossibility of remedying this by the Art of Surgery, is what occasions the Reflux that frequently attends these Diseases.

A Man aged twenty-seven Years, was sent to *La Charité* the 12th of *January*, 1727, who had a Tumour of the Bigness of an Egg in the inferior

Part of the *Regio Lumbaris sinistra*: We perceived a Fluctuation, yet there was no Inflammation upon the Skin; moreover, the Patient had felt no Pain, which induced me to enquire whether he had not strained himself; he told me he had not, and that he had been afflicted with no Distemper since he had the Small-Pox, which was above a Year before.

I made a bad Prognostick, understanding those Sorts of indolent Tumours that are formed by a Collection of *Pus*, amassed in some other Part occasioned by a *Caries*. Nevertheless, to perform the Cure if possible, I applied a Train of *Lapis Infernalis* upon the Tumour, to attenuate the Teguments, which were two Fingers Breadth, and opened it two Hours after; it discharged about three half Pints of *Pus*, or rather purulent *Sanies*. I took off the Eschar, and a Part of the Lips of the Wound, that I might dress it more commodiously, and with less Pain to the Patient.

The next Day I found the Wound almost dry; which Dryness is common in such Cases. The Reason is this: The Quantity of *Pus* discharged by the Aperture, is not formed where the Tumour appears, and is only collected by a Drop at a time. If all the Matter expanded is evacuated by the Operation, upon removing the first Dressing, and even those some Days after, you must expect to find no more *Pus* than what is furnished by the *Caries* from one Dressing to another; because those Parts, which served as an Aqueduct to the *Pus*, being only kept asunder by it, can furnish none. The Wound remained in the same Condition till the 20th, without much Suppuration; and the *Pus* was ferous, black, and foetid. I endeavoured, in vain, to animate the Wound by compound Digestives; it remained dry for the Space of three Weeks. During
this

this Interval, the Patient had various Symptoms ; as a slow Fever, intercepted by Shiverings : At length the Lungs were concerned, attended with a Difficulty of Breathing ; he spit Blood, and died the second of *April*.

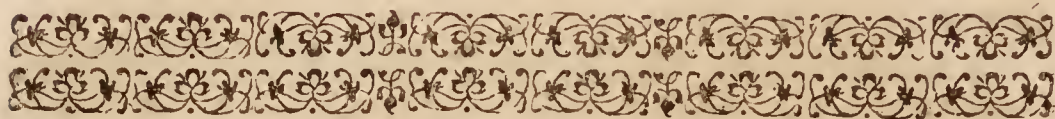
I opened the Body, and found the transverse *Apophyses*, on the left Side, and even the Body of the two last *Vertebræ* of the Back, and the Circumference of the Spine of the *Os Ilion*, carious. I opened the *Thorax*, and found both *Lobes* of the Lungs inflamed ; for the Inflammation was still manifest in some Places, and in others Abscesses almost formed. Thus the Reflux is made upon the Lungs in the same manner as upon the Liver.

R E M A R K S.

It seems surprizing, that most of those Patients who have had a Tumour of this Nature opened, perish in a few Days after the Operation, by a Reflux of purulent Matter, though they have carried *Pus*, ready formed, for several Months, even Years, without any other Symptom than a slow Fever. I shall give you my Opinion upon it, which I am willing to relinquish, when I meet with more probable Reasons.

While the *Pus* is not evacuated, the Ulcer from whence it proceeds is always moist, and the Parts that suppurate, may be said to swim in it ; but when the *Pus* has been discharged, the Ulcer becomes dry. If proper Remedies can be introduced, it is only for a few Days after the Operation ; but soon after the *Periosteum*, and other membranous, or aponeurotick ulcerated Parts inflame, because the Flesh approaches, and prevents the Introduction of the Medicines. Hence the Reflux of purulent

rulent Matter proceeds, which is generally declared by irregular Shiverings, and followed by a Suppuration in some of the *Viscera*.



O B S E R V. LXXI.

Of a Sarcocoele, or Tumour in the Testicle.

INflamations are not cured by the first Bleedings, but by the last ; the first, generally, do no more than suspend the Progress of them. On the 27th of *May*, 1728, a Servant came to *La Charité*, who had strained himself by lifting a considerable Weight. He perceived a violent Pain in the *Scrotum* from that Instant, and the *Testicle* began to swell in a few Hours. A Surgeon had dressed him at first with emollient Cataplasms, and bled him four Times. I should, perhaps, have proceeded in the same Method ; but the Person growing impatient that he did not recover so soon as he desired, came to the Hospital. I examined it, and found the spermatick Vessels hard and tumefied, with an Inflammation of the *Testicle*, which was four Times its natural Size. The Swelling of the spermatick Vessels extended three Fingers Breadth above the Ring of the *Obliquus Externus*. I ordered him to keep his Bed, which he had not done before, and bled him immediately, prescribing emollient and repelling Cataplasms. Finding the Symptoms to subsist the next Day, without the least Augmentation in the Tumour, I bled him a sixth Time, and continued the same Topicks ; but this only suspended the Increase of the Distemper, which

which made me resolve upon a seventh Bleeding. Phlebotomy thus closely prosecuted, produced such an Effect, that nothing remained in the *Testicle*, or spermatick Vessels, the sixth Day, but an Hardness, without Pain. I ordered a Mercurial Plaister to be applied to the *Testicle*, and left the Cataplasm upon the spermatick Vessels above the Ring, that it might keep the Parts warm by the Continuance of the Heat. The Hardness sensibly dissipated, and, in three Weeks, the Patient being obliged to follow his Master to the Camp at *Compeigne*, happily found himself in a Condition to go from the Hospital: I advised him to wear a *Suspensorium* for some Time, to favour the spermatick Vessels, which might have suffered by the Weight of the *Testicle*.

R E M A R K S.

This Accident is common to those whose Labour requires Strength: I have seen others attacked with the same Disorder by a Fall, when the *Testicle* has been bruised; and easily conceive, that in this last Case, the spermatick Vessels must suffer an Extention, and an Inflammation of the *Tunica Vaginalis* may be the Consequence, and communicated to the *Testicle*. But I am seeking the Reason why the *Testicle*, and spermatick Vessels, should swell and be inflamed by a Straining, even above the Ring of the *Obliquus Externus*.

I can discover only two Causes: The first is, the Pressure of the Ring of the *Obliquus Externus* upon the spermatick Vessels, when the Muscle violently contracts itself; a Pressure, which making a Sort of Ligature, by lessening the Arch, does not prevent the arterial Blood from passing, but stops and retards the Return of the venal Blood, the
Lympha,

Lympha, and, perhaps, of the *Semen* that is brought back by the *Vasa Deferentia*: But this momentary Suspension is so trifling, that I have a Difficulty in conceiving that this alone can be the Cause of those Inflammations I have seen. The second, which seems to me more probable, is the Compression of the cellular Texture, in which the spermatick Vessels are lodged above the Ring. It is evident, that in all Efforts made, the Parts of the lower Belly are pressed downwards, and act perpendicularly upon the *Pelvis*, which frequently occasions an *Hernia*. Consequently, the Intestines must necessarily press upon the cellular Texture, in which the spermatick Vessels pass.

It is very true, that the Intestines are soft Bodies, but are often filled with Excrements of thicker or thinner Consistence, and especially at the winding of the *Colon*, where they are harder. Its Situation favours my Conjectures, and Experience authorizes them, since those Tumours, proceeding from Strains, are generally on the Left Side. If, in Consequence hereof, an Extension, Pressure, or Contusion happens in the cellular Texture, an Inflammation may easily follow; and that of the *Testicle* will be first, because the Return of the Fluids serving for its Nutrition and Filtration, is impeded, suspended, or even interrupted.

Let the Inflammation happen in these Parts from what Cause soever, it does not differ from that in others. Phlebotomy, and emollient Topicks, are our principal Resources. Revulsive Bleedings diminish the Quantity of Blood, and divert it from the Part inflamed; Emollients facilitate the Return of the stagnated Fluids, and assist their Transpiration, but they must be speedily used to stop the Progress of the Inflammation. Though the Progress is suspended, it is no Reason why Phlebotomy

tomy should not be repeated, especially in plethorick Patients ; in this Case, that Bleeding which is looked upon as useless, is what suddenly performs the Cure.



O B S E R V. LXXII.

Of a scirrhus Tumour upon the Testicle.

TH E *Testicle* is not a Member essential to Life ; but the Author of Nature having created it for the Propagation of the Species, it ought to be preserved, if possible ; therefore, in Distempers wherewith it is attacked, and that cannot be cured without a Chirurgical Operation, you ought to examine whether the Substance is affected, or the Teguments, that those alone may be your immediate Consideration.

A Journeyman Peruke-Maker was sent to *La Charité* the 10th of *August*, 1728, and was put into the Fever Ward: He had a continual Fever, with a very considerable Swelling in the *Scrotum*, on the right Side. When he had recovered of his Fever, he was removed into the Ward of the Wounded. Upon interrogating him, he told me, that three Weeks before he had a Suppression of Urine, which, in three Days, terminated in a Discharge of *Pus* by the *Penis* : That this putting him upon the Examination of those Parts, he found a large Swelling in his right *Testicle*. I asked him whether he had not had a *Gonorrhœa*, and whether this was not the Consequence of a Running. As he answered me in the Negative, I was obliged to believe him : I examined it, and found two thirds of
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the Circumference of the *Testicle* covered over with Callosities an Inch thick, and a great Part of the *Scrotum*, on that Side, was confounded in the Callosity, and the Skin itself adherent. I was under Apprehension at first, considering the Suppression of Urine which preceded, that this Callosity was occasioned by an Opening in the *Urethra*, and that it was the Beginning of a Fistula in *Perinæo*; but perceiving no Communication of Callosity between the *Testicle* and the *Urethra*, I resolved to operate.

When I had divided the *Scrotum*, and discovered the *Testicle*, uncertain whether I should extirpate it or not, I observed that its Substance was found on one Side, and that the Origin of the Callosity was in the Tunicks; therefore I undertook to preserve it.

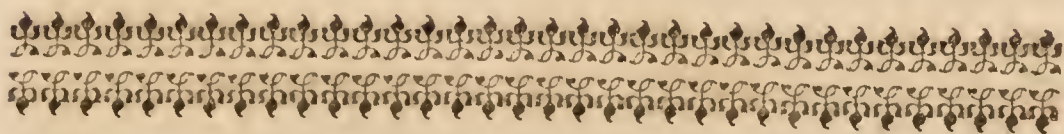
In this Callosity were several Vesicles filled with Water; and it was with Abundance of Fatigue, both on mine and the Patient's Side, that I finished the Dissection of these Callosities, in which the Expansion of the *Cremaster* was confounded, and a Portion of the *Tunica Vaginalis*. Thus I left the *Testicle* that was found, soft, and of its natural Magnitude, clothed only with the *Tunica Albuginea*, and suspended in the Wound by the spermatick Vessels. Several Arteries furnished a considerable Quantity of Blood, especially one, upon which I made a Ligature, and the rest stopped by the Application of a dry Lint.

The Patient was bled three Hours after, to prevent Inflammation; and emollient Fomentations were applied upon the Belly. I moistened all the Lint several Times, which was dry, and hardened by the Blood, with *Ol. Ros.* warmed, as much to relieve the Patient's Pain, as to prevent the Dressings from offending the *Testicle*; and removing it two Days after, I ordered it to be dressed with
simple

simple Digestive. The Suppuration came on but slowly at first, but began to be of good Consistence in four Days, though in a small Quantity, and the Patient had very little Fever.

The same Dressings were continued for twenty Days, before the *Testicle* began to be covered with good Flesh; but the Wound took a favourable Turn at length; and the *Testicle*, which hung in the Wound by the spermatick Vessels, like a Pear by its Stalk, was covered by Degrees, or rather surrounded by the Cicatrice of the *Scrotum*. It was three Months before it healed; but the *Testicle* was preserved.

This is not the only Time I have seen a *Testicle*, and even both, entirely separated from the *Scrotum*, and hanging only by the spermatick Vessels, covered again with Flesh, and inclosed by the Cicatrice. This is often seen in gangrenous Abscesses of the *Perinæum*, wherein the whole *Scrotum* being concerned, we are obliged to amputate almost the whole.



OBSERV. LXXIII.

Of a Fistula in the Scrotum.

THE 15th of May, 1725, a Man was brought to *La Charité*, who had a Fistula in the lower Part of the *Scrotum*, on the left Side, with several Callosities that adhered, or seemed to adhere to the Body of the *Testicle*.

He informed me, that his Distemper had began by a small Pimple, which gradually increased to the Bigness of a Walnut: That a Surgeon in his Neigh-

Neighbourhood had opened it, and discharged a white *Pus*. Whether the Wound was neglected, or the Bottom of it so bad that the Surgeon could not destroy the Flesh, the Ulcer remained fistulous.

About three Weeks after the Opening of this small Abscess, a very considerable one arose upon the Loins, between the false Ribs and the *Os Ilion*. This was likewise opened by the same Surgeon, and attended with the same Fate as the former, that is to say, it remained fistulous.

As this last Fistula was not incommodious to the Patient, and the Bottom of it seemed at a Distance upwards, and the *Pus* discharged freely, I advised the Patient to leave it as it was, unless some Alteration should happen.

With regard to the Fistula in the *Scrotum* which incommoded him much, I performed the Operation, taking off all the Callosity upon the Testicle; and to preserve that Part, operated with the same Precaution, as is used in Dissection. As the Tumour did not possess the whole Circumference of the *Testicle*, and was limited at the *Tunica Vaginalis*, inclusively, the *Testicle* was covered by the *Tunica Albuginea* only, after the Operation.

The Wound was dressed the first Time with dry Lint, and with common Digestive, till the Suppuration was well established. It was dressed in this Manner for eight or ten Days, and the rest of the Time like a simple Wound, till it was perfectly healed, and the Patient went from the Hospital entirely cured on the 9th of *May*.

R E M A R K S.

The *Testicle* may have been often sacrificed for want of a thorough Examination into the Distemper with which it was attacked; the Membranes

branes that inclose it being susceptible of different Disorders, they often enlarge considerably, and the *Testicle* seems concerned, whilst it is entirely sound.



O B S E R V. LXXIV.

Of a Castration.

AUTHORS say, that when the spermatick Vessels are swelled above the Ring of the *Musculus Obliquus* in a *Sarcocele*, Castration ought not to be performed. This Law should not be general; for we have seen many who have been cured by making a Ligature higher than the Ring, when the spermatick Vessels were neither stuffed or swelled above it. It depends upon a Plurality of Observations to instruct us, and to state how far we may carry our Ligature with Safety.

Since we can trace the spermatick Vessels between the Coats of the *Peritonæum*, to their Origin, we have Permission, I think, to make the Ligature above the Swelling, be it as high as it will. But two Things require a particular Attention: First, if the Ligature is made very high, an Inflammation of the *Peritonæum*, and consequently of the whole lower Belly, must be apprehended after the Operation, which destroys the Patient. Secondly, if the Swelling of the spermatick Vessels extends very high, suppose the Patient recovers by the Operation, he perishes some Time after, because that Part of the spermatick Vessels which remains sound, will tumefy in the End, and render the Distemper

incurable. Mr. *Marechal* told us, at the Hospital, that he had often seen it ; and this is to the Purpose of our present Patient. The following Observation may be of some Utility in parallel Cases.

On the 6th of *April*, 1726, a Man was brought to the Hospital, who had the right *Testicle*, and the spermatick Vessels, very much tumefied for nine Months ; at which Time his Distemper began, as he said, by a Strain. His *Testicle* grew hard, and gradually increased, till it was bigger than my Fist. The spermatick Vessels were swelled above four Fingers Breadth beyond the Ring of the *Obliquus Externus*, and were as thick as my Thumb.

To avoid performing an Operation that seemed to be dangerous, I ordered emollient Cataplasms to be applied to it, for the Space of three Weeks, anointing the *Testicle* and spermatick Vessels with *Ung. Neapol.* and fomented it with emollient Decoctions. Mr. *Burette*, Physician of the Hospital at that Time, neglected no internal Remedies, that might dissolve or mollify the Hardness ; but all our Care was useless. In three Weeks I felt a Fluctuation in the Body of the *Testicle*, which I opened, in hopes, that after the Evacuation of the *Pus*, the spermatick Vessels might relax with greater Ease. I found about an Egg-shell full of purulent Serosity, scattered between the *Testicle* and the Membranes of the *Scrotum*, and white *Pus* formed in the Body of the *Testicle*. The Wound was dressed the first Time according to the usual Method, and the Cataplasms were continued.

The Tumefaction of the spermatick Vessels diminished one half, but the Wound took an ill Turn, a *Fungus* arising within it in the Shape of a *Carcinoma* ; a *Fungus*, in which the Body of the *Testicle* was inclosed. Mr. *Marechal* being come to the Hospital, Messieurs *Guerin*, *Gerard*, and
Morand

Morand junior, came with him, and examining the Distemper together, we concluded, that since the Patient would certainly die, it was better to hazard an Operation, whose Event was uncertain, than suffer him to perish without attempting the Cure; and therefore I performed it.

When I had divided the Ring, and the Muscles of the *Abdomen* along the spermatick Vessels, whose Magnitude discovered their Progress; I made a Ligature upon them, four Fingers Breadth above the Ring, as high as the Spine of the *Os Ilion*, where the Hardness ended.

The Patient being dressed, we examined that Part of the spermatick Vessels I had taken off, which was as thick as my Finger in its whole Extent, hard, and of different Colours; so that the Artery was not to be distinguished from the Vein.

The Patient was twice bled the Day of the Operation, and again in the Night; but notwithstanding this, an Inflammation seized the *Abdomen* with excruciating Pains, and he died on the sixth Day.

I opened the Body, and found an inflammatory Inflation throughout the whole *Abdomen*, and the spermatick Vessels varicous above the Ligature, but without Hardness.

R E M A R K.

This varicous Swelling may make us presume, that if the Patient had fortunately recovered, the Remainder of the spermatick Vessels might have grown hard in Time, which Mr. *Marechal* declared he had seen several Times.



O B S E R V. LXXV.

Of an Hydrocele in the Cystis Hernialis.

A Person, after some regular Fits of a Fever, was attacked with an incompleat *Hernia* on the right Side. He neglected it, and wore no Bandage; therefore it soon became compleat; and the *Cystis Hernialis* increasing, in proportion to the Quantity of the Intestine that descended, it extended by Degrees to the *Testicle*. Upon this the Patient consulted Mr. *Arnaud*, who when he had made the Reduction, ordered a suitable Bandage; so the *Hernia* returned no more.

A Month after the Patient, contrary to what is common to those who wear Bandages, felt Pains and Dartings along the spermatick Vessels. These Pains were appeased in a few Days; but a Tumour formed itself by Degrees under the Groin, which, at length, became as large as a small Melon. The Magnitude of this Tumour incommoding the Patient, he consulted Mr. *Arnaud* again, who perceiving Water in the Tumour, made a Puncture into it with a *Troisquart*, and discharged about three half Pints. The Tumour diminished only one half by this Operation, and what remained being very hard, the Patient came to *La Charité*.

The whole *Scrotum*, on the right Side, was only a large round Tumour, whose Nature was uncertain; it seemed to be a Complication of an *Hydrocele* with a *Sarcocele*; besides this, the Patient had

a little Fever. I ordered him to be bled, prescribing a severe Diet for four or five Days. This alone gave a Check to the Fever ; but the *Cystis* of the *Hydrocele*, which had been emptied before, began to fill again ; from whence I could plainly distinguish there was a *Cystis*, from whence the three half Pints of Water had been drawn ; a *Cystis*, separate from the *Testicle*, that was very found, and distinct from another Tumour, that extended along the spermatick Vessels. This Tumour was oval, and tho' very hard, I thought I felt a Fluid in it ; I say, that I thought so, because the Affair was dubious, considering the Hardness of the Tumour. In this Uncertainty I ordered emollient and repelling Cataplasms to be applied ; but perceiving it to augment, notwithstanding its Indolence, and the Patient being free from a Fever, I ventured to make a Puncture into it with a *Troisquart*, the better to discover its Nature, and discharged a Quarter of a Pint of Water of the Colour of Urine. The Tumour being diminished by the Evacuation of this Water, I could easily perceive that the *Cystis*, which contained it, was an Inch thick.

In four Days, the Tumour was as full as it was before the Puncture, and therefore I resolved to extirpate it : I began, by dividing the *Scrotum* longitudinally, from the Bottom of it to the Ring, this being the Extent of the Tumour ; and then discovered three distinct *Hydroceles* that contained Water. One was even in the *Cystis Hernialis*, which having been pressed in its superior Part by the Pad of the Bandage, was closed in such a manner, that its Cavity had no Communication with the *Abdomen*. I sincerely confess my Astonishment, having never before seen the *Cystis Hernialis* closed next the *Abdomen* ; the Pad of the Bandage, generally, making the Orifice of it only some-

thing narrow. The second *Hydrocele* was between the former, and the *Musculus Cremaster*, in the Cellula of the *Tunica Vaginalis*. The third was upon the *Tunica Albuginea*; and it was into this that Mr. *Arnaud* had made the Puncture. Altho' the *Testicle* was in its natural State, I could not preserve it, the spermatick Vessels being, as they always are, confounded with the *Cystis Hernialis*, which formed the first *Hydrocele*; therefore I made a Ligature, both upon the spermatick Vessels, and the *Cystis Hernialis*, even with the Ring of the *Musculus Obliquus Externus*, and then separated it half an Inch below the Ligature.

Two Hours after the Operation I ordered the Patient to be bled, and emollient Fomentations to be applied to the Belly, which were continued several Days, and the Suppuration proceeding kindly, the Wound became a simple Wound in a short Time.

As I had tied the *Cystis Hernialis*, and the spermatick Vessels together, in the Operation, which made a Bulk as thick as my Thumb, I drew the Ligature very tight; nevertheless, whether it was grown loose, which sometimes happens, or whether the Parts contained in the Ligature were wasted, or partly cut by the Ligature itself, after the Operation, what was below it did not separate, but was nourished and grew in the Shape of a Mushroom. I consumed a Part of it at different Times with the mercurial Water; but the Pain torturing the Patient to a great Degree, I cut it off at the Root.

I examined the Tumour after the Operation, and still preserve it prepared, where the three *Hydroceles* are to be seen distinctly.

R E M A R K S.

I have said, that in Consequence of the Bulk formed by the *Cystis Hernialis*, and the spermatick Vessels together, the Ligature grew too loose in a few Days, and therefore suffered the nutritious Juice to pass. To prevent the like Inconveniency, would it not be more proper, in the same Case, to pass a double Thread across the Parts to be tied, and make two Ligatures with the two Pieces of Thread, one above, and the other below?

In one of my Observations upon *Herniæ*, I said, in speaking of the *Cystis Hernialis*, that its Entrance was only made narrower by the Pressure of the Pad of the Bandage, and that its interior Sides not uniting together, that Passage remains more or less open. How then could this be so closed as to have an *Hydrocele* formed within it? Perhaps it was inflamed; and since it is confirmed by daily Practice, that those Parts which are separate from each other in a natural State, contract a vicious Adhesion by an Inflammation, I am almost assured, considering the Pain felt by the Patient in his Groin after he had worn the Bandage, that this Pain, I say, was a Symptom of the Inflammation, and then the *Cystis Hernialis* closed; that is to say, an Adhesion was formed at its Entrance, whose Sides were pressed one against the other.





O B S E R V. LXXVI.

Of an Abscess in Perinæo, and Caries of the Os Pubis on the Right Side.

UB I Dolor ibi Morbus, is an incontestable Axiom; but Pain is not a Distemper, it is only the Symptom of one. What is a Distemper then? It is an Inflammation that is certainly approaching, if not already begun.

Experience teaching us, that if the Progress of an Inflammation is not quickly stopped, it is generally attended with fatal Consequences; the following Observation is a Proof of it.

On the 19th of *September*, 1726, a Gardener, about twenty-two or twenty-three Years of Age, leaving his Work in the Evening, was seized with an acute Pain in both Groins, which gave him a Difficulty in breathing the whole Night. He sent for his Surgeon the next Day, who having examined the painful Part, found neither Tumour nor Inflammation: He bled the Patient, who was attacked with a Shivering some Hours after Bleeding, which was followed by a Fever. In the Evening he was bled again, and the Pains were a little quieted; but the third Day the Shivering and Fever returned about the same Hour; and then the Pain fixed upon the *Perinæum*. He was again twice bled the two following Days, and at each Time his Pains went off, and began again soon after.

This induced his Surgeon to bleed him again the sixth Day. The Patient still complained, and tho'

tho' neither Elevation nor Inflammation appeared upon the Part, they applied anodyne Cataplasms, which were continued for several Days: In this Interval, the Fever was become continual, the same Pains subsisted, and yet nothing appeared externally. The Surgeon gave the Patient several Clysters, and purged him, substituting emollient Fomentations instead of the Cataplasms. The Patient remained in this Condition till the Beginning of *October*, when a Tumour began to appear in *Perinaeo*, and the seventh of this Month he came to *La Charité*.

Till this Time he could not make Water, but when he went backward, and then with infinite Pain, his Urine discharging only by a Drop at a Time; at length he had a total Suppression of Urine, insomuch that he was obliged to be probed in the Night.

In the Morning I found the Tumour in *Perinaeo* inconsiderable, and probed him to know in what Condition the *Urethra* was; and the *Catheter* not passing without Difficulty, there was Reason to presume it was concerned, either by the Pressure or Inflammation.

To hasten the Suppuration, I applied a maturing Cataplasim, which occasioned the Tumour to rise considerably in the Night; and finding a Fluctuation in the Morning, I opened it, first introducing the Algaly into the Bladder, that I might not lose Sight of the *Urethra*. An Ocean of ferous Pus issued from it; and though the Incision was large, having defrænated as much as possible, both above and below, all the *Sinus's* were not opened, some extending beyond the Reach of my Finger; then I dressed the Wound according to Art.

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The Patient made Water freely after the Operation, the *Urethra* not being concerned, and no longer compressed. He was bled again that Day.

When the first Dressing was removed, all the *Sinus's* appeared, which furnished a large Quantity of *Pus*. There was one which passed from the Neck of the Bladder, even towards the Bottom of it, in the cellular Texture that surrounds it, and another that extended behind the Tuberosity of the *Ischion*.

The Patient was bled again, but the Fever never left him; besides, he had a yellowish Complexion. I used deterfive Injections to all the *Sinus's* in vain, the Wound was always of a bad Colour. In short, he was seized with a Shivering the sixth Day after the Operation, which was followed by many others very irregular; and the Suppuration diminishing, he died on the ninth.

I opened the Body, and found, besides the *Sinus's* that extended by the Side of the Bladder into the cellular Texture that surrounds it, the *Os Pubis* and *Os Ischion* carious; and the *Caries* so complete, that you might crumble them between your Fingers, like a Piece of Touchwood.

R E M A R K S.

You may perhaps be surprized, and ask, How it was possible that the Bone should be so far destroyed in so short a Time? For my own Part, I am not. The *Os Pubis* is of a spongy Texture, like the Extremities of the large Bones; and the Cells forming their Texture are always lined with a Membrane, furnished with Vessels and Glands, that separate the *Succus Medullaris* from the Blood. This being taken for granted, ought these Parts to be less susceptible of critical and symptomatick Abscesses,

cesses than those more soft? Because the Membranes, lining all those *Cellulae*, are not exposed to external Injuries, are they less exempt than others from an *Erysipelas* or Inflammation? No, certainly; all the Difference is, that as they are locked up, and by that Means not the Object of our Senses, they are out of the Reach of Chirurgical Relief. For this Reason, a Distemper in them ruins the spongy Texture of the Bone, before any certain Sign makes it externally manifest; and even when it becomes manifest, it is too late to stop its Progress, the Bone being destroyed.

For this Reason, Collections of *Pus* in the cellular Texture of the Bones, cannot be called critical, altho' the Mass of Blood may be depurated by them, as well as by softer Parts; therefore I shall call them symptomatick, since they can only cause the Loss of a Limb, when they are formed upon Parts that may be amputated.

What Assistance can be efficacious in such a Case? It belongs to copious and repeated Bleedings, to dissipate the Inflammation that preceded the Putrefaction of the Membranes. It is true, that the Patient was bled five Times in five Days; but the Relief he received from each Bleeding, is a certain Proof, that if those five had been performed the first Day, the Inflammation would have entirely yielded.

Because nothing appeared externally, was that a prevailing Reason not to repeat *Phlebotomy*? No, there was a deep acute Pain; and wheresoever that is found, it is sufficient to fear an Inflammation, if not already begun, at least at Hand, and to act accordingly.

The Blood may, without doubt, be disposed to be inflamed, and fix indifferently upon one Part or another; but its Quantity, its rapid Course to

one Part more than another, for Reasons of which we are ignorant ; these two, jointly with the small Diameter of the Vessels, is what causes the Disturbance, which must of necessity augment, whilst the same Causes subsist. We must therefore not only diminish the Quantity of Blood, and turn its Course, when it threatens any Part, by a convenient Regimen, but by copious and quickly repeated Bleedings.

Four Bleedings, in twenty Hours, often stops the Progress of an Inflammation, that twenty would not cure, when once arrived to a certain Degree.



O B S E R V. LXXVII.

Of a Fistula in Perinæo.

IN *August*, 1725, Mr. *La Serre*, Apothecary to the King, recommended an *English* Officer to me, who was sixty-six Years of Age, and in a declining Condition.

He had the *Scrotum* very large and hard, covered with fistulous *Sinus's*, through which *Pus* and *Urine* were discharged ; which extended from the *Anus* to the Root of the *Penis*, and the Number of them daily increased.

As it was the *Urine* that occasioned all this Ravage, to prevent its escaping this Way, I endeavoured to introduce the *Algaly*, and was fortunate enough to pass it into the *Bladder*, tho' with much Difficulty, the Canal of the *Urethra* being very callous, and winding in its whole Extent. You know, that in *Fistula's in Perinæo*, of a short Date,
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the Canal loses its Pliancy, becoming hard and uneven ; that it also loses its Figure, growing crooked in proportion to the Number of Callosities. I was obliged to change the Direction of my Probe every Inch, in order to advance it : At length having penetrated into the Bladder, I judged it most proper to leave it there five or six Days, to mould the Passage. During the Space of three Weeks, I did nothing more than to withdraw the Probe sometimes, to clean it, and to introduce another of the same Shape immediately. The Size of the *Scrotum* was much diminished in this Time, and no more Fistula's were formed ; some even closed up, and other fresh Callosities were resolved, those only remaining which had so long subsisted.

These not being curable without an Operation, I had a Consultation with Messieurs *Petit*, *Malaval*, and *Boudou*, when we agreed to make a Passage that should go directly to the Bladder, that we might introduce a *Canula* into it, and to take off as much of the Callosity as we could, being persuaded that the Remainder would dissolve by an ample Suppuration.

I placed the Patient upon the Border of his Bed, in the same Posture as for *Lithotomy* ; and instead of the Algaly, introduced a Catheter, and thrust the Point of the Lithotome cross the *Perinæum* into its *Cranula*. As the Callosity was two Inches thick from the Skin to the *Urethra*, I could not feel the Curvature of the Probe with my Finger at the *Perinæum* ; and, as I cut, was obliged to put my Finger into the Wound sometimes, to seek for the *Urethra*, that I might not carry the Point of the Lithotome on one Side of the Catheter. The Point being lodged in its *Cranula*, I made an Incision in the same manner as in the Operation for the Stone ; and then ordering an Assistant to hold the Catheter, I removed

moved a Part of the Callosity ; then taking the Catheter into my own Hand, I introduced a Gorgeret into the Bladder, by Means of its *Cranula*, that I might the more easily pass the *Canula*.

The first Week a slender Diffolution of the Callosities was procured by the Suppuration, and the Circumference of the Wound becoming less, made the Dressing more difficult, when very fortunately, an Abscess was formed in the *Scrotum*, on the right Side near the *Rhaphé*. I opened it, and taking Advantage of the Opportunity, extirpated all the Callosity, between the fresh Wound and that I had made eight Days before : Then I withdrew the *Canula*, and substituted a Bougie of waxed Linen in its Stead, as thick as my little Finger, covered with *Empl. de Mucilag. & Diach. cum Gum.* mixed together. I lessened the Bougie by Degrees, that the Canal might contract a little, and leave a free Passage for the Urine through the Wound.

The whole *Urethra* being distempered, I judged it proper to suppurate that also ; to this End, I thrust an Algaly into the *Penis*, and passing it through the Wound, put a Seton into the Eye of it at the Extremity, and withdrawing the Algaly, conducted the Seton through the *Penis*.

During the first Week, I armed the Seton with *Ung. Fusc.* to consume the Callosities, and to procure a large Suppuration ; then armed it afterwards with *Diachylon*, mixed with *Ung. Dialth.* I dressed the Wound at the same Time with *Ung. Fusc.* or with *Diach. cum Gum.* melted, with which I armed both Dossils and Pledgets. In short, I desisted from the Use of the Seton and Bougie in three Weeks, all the Callosities being intirely dissolved.

Now I began to think only of a Re-union, and introduced a leaden Algaly into the Bladder, that
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the Urine might not pass through the Wound while it was healing, (was it possible to effect it,) or, at least, till the Canal was moulded.

During all this Handy-work, we had terrible Symptoms to encounter. Notwithstanding the exact Regimen observed, the Patient had a very violent Fever for ten Days, his Pulse intermittent, and the Buttocks almost mortified, by being obliged to lie upon them continually, and the Difficulty attending his being removed. Bleedings proportioned to the different Necessities and Strength of the Patient, a proper Regimen, with Emulsions, and other Remedies, at length quieted all these Symptoms.

While the leaden Algaly was in the *Urethra*, an *Erysipelas* came upon the right Knee, which spread over the Thigh and Leg to the very Foot. I prescribed resolving Fomentations, and, in eight Days, the *Erysipelas* terminated by an Abscess of the Bigness of a Crown, covering a Part of the *Rotula*, and Part of the Ligament that fastens it to the *Tibia*.

I opened it when the Matter was formed, and was surprized to find a Stone with the *Pus*, as big as a Lentil, the sixth Part of an Inch thick, and very rugged, resembling a Piece of carious Bone. Moreover, a large Quantity of small Gravel was mix'd with the *Pus*, which adhered to some small Lumps of indurated Fat. I cut off a Part of the Lips of the Wound, making it flat and oblong: For the Space of a Fortnight, at each Dressing, I took off a Quantity of incrustated Gravel with the *Curette*, the third Part of an Inch within the *Pannicula Adiposa*, round the whole Circumference of the Ulcer, and then it took an happy Turn, and advanced in healing.

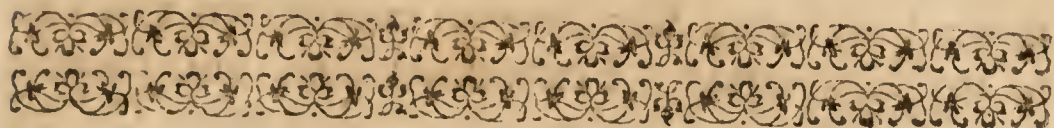
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During this Time, the Urine passed by the leaden Algaly, and the Wound in *Perinæo* visibly lessened.

The Quality of this gravellous Abscess, and that of the Urine, which was very muddy, and loaded with Films, proving a Disposition in the Blood to form Concretions, and Petrefactions, I apprehended the Patient would become liable to the Stone, provided the Urine had not a very free Passage; therefore I changed my Opinion as to the Management of the Fistula in *Perinæo*, and resolved to keep it open instead of healing it. Then, withdrawing the leaden Algaly that was in the Bladder, I put a *Canula* into the Wound, whose Extremity reached beyond the bulbous Part of the *Urethra*, near the *Prostata*. This *Canula* supporting the Sides of the Fistula, which daily approached, suffered the Urine to pass with greater Facility than by the Canal of the *Urethra*, which could not have suppurated without being a little contracted. This *Canula* did not confine the Neck of the Bladder; so that the Patient kept his Urine as long as he pleased: He wore it a considerable Time, only drawing it out sometimes to clean it.

Eight Months after he came to see me, and to enquire what Method it was most proper to take. He had drawn out the *Canula* a Week before, because it was incommodious when he sat, and could not introduce it again. I examined the Fistula, which was a little contracted, and seemed to be cicatrized: As no Matter issued from it, and he told me the Urine evacuated freely both by the Fistula and the *Penis*; I judged that these two Orifices would be sufficient for it, and prevent the Formation of a Stone, and therefore thought it unnecessary to continue the *Canula*.

I saw the Patient above a Year after, when the Fistula was so contracted, that no Urine passed through it, but was freely discharged by the *Penis*.



O B S E R V. LXXVIII.

Of a Fistula in Perinæo.

IT has been always an Axiom, that to heal a Wound by the Art of Surgery, or to perform an Operation belonging to it, a thorough Knowledge is requisite both of the natural and præternatural State of the Part: I go still farther, and say, that the Operation should be performed two or three Times in the Surgeon's Imagination, before he comes to the Patient; and that it is an improper Time to take his Measures for the Operation with the Instrument in Hand. The Distemper, which is the Subject of the following Observation, is one of those Cases, whereon (because they are out of the general Rule) we cannot too much reflect before we begin.

In 1727, I had cut a Boy of twelve Years of Age for the Stone, extracting one considerably large, and he went from the Hospital perfectly cured. In 1729, he felt a Pain in making Water, and the Pain increasing for several Days, a small Hole was at length formed *in Perinæo*, by which a Part of the Urine was discharged, the rest evacuating by the *Penis*. The Passage of the *Urethra* contracted by Degrees, insomuch, that in the Space of a Month, the Urine ceased to flow through the *Penis*. In May, 1730, he was brought to *La Charité*; they examined his Distemper, and found a

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Stone of the Bigness of a Pea fixed in the Fistula of the *Perinaeum*, just under the Skin, which they easily extracted.

When I went to the Hospital to dress those Patients I had cut, Mr. *Morand* committed this Lad to my Care again. I examined him, and found a small Orifice in *Perinaeo*, surrounded with Callosities, and could only introduce a very small Probe into the Bladder, which was then confined in the Passage, as tho' it was in a Case. I endeavoured to introduce an Algaly into the *Penis*; but the Extremity of the Instrument, with my utmost Endeavours, would go no farther than the End of the Bulb of the *Urethra*, because the callous or fungous Flesh had either broke or turned the Passage, by possessing the membranous Part of the *Urethra*.

The Distemper seeming to me of no small Consequence, I deferred the Operation till the next Day. Having well reflected upon the Structure of the Parts, and upon the present Condition, to which the urinary Passage was reduced by the Cicatrices and Callosities, I placed the Lad upon his Bed, in the same Attitude as for the Operation of Lithotomy, with his Hands fastened to his Heels, and supported by two Assistant Surgeons. First I introduced an Algaly into the *Penis* as far as it would go, and ordered it to be held by an Assistant, in such a Manner, that the Handle made a right Angle with the Body of the Lad. Then I introduced a very slender Probe into the Bladder, and upon this an hollow one open at the End, so that embracing the small Probe, it could not err, and withdrew the other.

The *Cranula* of the Probe being turned towards the *Symphysis* of the *Os Pubis*, I conducted a long strait Bistoury by it to the End of the Probe, observing that the Edge directly answered the Extre-

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mity of the Algaly, so that all between the two Instruments was divided. I withdrew the Bistoury, and turning the *Cranula* of the Probe towards the *Intestinum Rectum*, I made a second Incision. This being performed, I passed a Gorgeret into the Bladder, by Means of the same Probe, and by the Assistance of the Gorgeret, introduced a leaden *Canula*. The same Day the Urine, a Drop whereof had not passed by the *Penis* for three Months before, resumed its Natural Course; Part discharging by the *Penis*, and Part by the *Canula*. Perhaps the sudden Thought I had at the Time of the Operation, of turning the Edge of my Bistoury towards the Extremity of the Algaly, occasioned the Success, and that, by this Means, I had opened and renewed the Communication, from the Neck of the Bladder to the tendinous Part of the *Urethra*. If I had not been successful enough to have made this Communication the first Day, it could not be done after the Dissolution of the Callosities. I continued the Use of the *Canula* for the Space of eight Days, during which Time I dissolved and destroyed the Callosities by the Assistance of the *Troch. Consump.* At the End of this Term, I took out the *Canula*, and left the Cicatrization of the Wound to Nature, my only Attention being to approach the Bottom and Lips of the Wound together, by Compresses and Bandage; and he was perfectly cured the 20th of *June*.

O B S E R V. LXXIX.

Of a Stone in the Urethra, and a Fistula in Perinæo.

TO W A R D S the End of the Year 1722, a Lad, sixteen Years of Age, perceived a small Swelling in *Perinæo*, but gave no Attention to it, as it was unpainful.

Some time after, he went a Journey on Horseback, and the Pressure of the Saddle again the *Perinæum*, forced a Stone out of it, of the Bigness of a Pea, which passed through the Skin and *Urethra*, both being worn out, by the reciprocal Pressure of the Saddle and the Stone; and the Urine distilling through this Aperture, formed a Fistula.

Soon after, the Patient perceived a Swelling at the Bottom of the *Scrotum* on the left Side; and finding it to increase daily, he shewed it to a Surgeon of his Acquaintance, who looked upon it as venereal, and proposed a Salivation: He consented to this Proposal, and went through it without receiving the least Benefit. During this Time, the Fistula closed, and the Urine passed no longer that Way; which might perhaps happen from the daily Augmentation of the Volume of the Tumour.

The Occasion of this Tumour was a fresh Stone, which being stopped in this Place, and perpetually moistened by the Urine, was considerably increased. At length, in *December*, 1725, the Patient straining to lift a great Weight, he felt a violent Pain in *Perinæo*, and putting his Hand to the Part, felt something hard that had pierced the Skin: He used his Endeavour to Extract it with his Nails, but
could

could not succeed; but, as the Stone was soft, he crushed that Part of it in Pieces, (whence we may judge what Situation it had kept during its Stay there.) He was much incommoded by it for eight Days, not being able to sit without a violent Pain; and at length, in rising from his Seat, perceived the whole Stone to come out. He came to *La Charité* the next Day, and gave me an Account of his Distemper, producing the Stone, which I preserve for the Rarity of the Case; it weighs an Ounce, six Drachms, and fifteen Grains; is almost of a triangular Figure; two Inches and a half from one of the Angles to each of the other two, and two Inches from each Angle to the Sides subtending them, and three Quarters of an Inch thick.

It seems surprising that an extraneous Body should lodge so long, without causing either Pain or Difficulty in making Water. By examining the Stone, you may discover the Reason: There is a Depression in it, on that Side next the *Os Pubis*, and probably the Urine flowed freely by it.

Though the Lips of the Wound, through which the Stone passed, were approached, the Hole was still large enough to admit of my Finger. I felt a large Cavity, where the Stone had lodged, which was formed by a Dilatation of the *Urethra*, and imagined at first, that the Stone, when it was small, came from the *Urethra* through the Hole by which the former had passed, and then had increased between the *Urethra* and the Skin; but my Finger undeceived me, and convinced me that it had grown in the *Urethra* itself; for besides feeling the whole Circumference very smooth, as it grew narrower, it guided my Finger almost behind the *Scrotum*, where the Dilatation ended. The dilated *Urethra* was very thin in that Part where the Stone had lodged, and a Callosity was to be felt, on both

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Sides, without any *Sinus*. This Circumstance proves, that the *Urethra* was not opened, but when the Stone came out ; for had it been opened before, the Urine would undoubtedly have formed *Sinus's* and Fistula's in several Parts of the *Perinæum*, and here we had none ; from whence I infer, that the Callosities at the Side were occasioned only by the Pressure of the Stone.

I had recourse to generous Remedies and Topicks to dissolve them, such as emollient Cataplasms applied to the *Perinæum* ; and that the Urine, by passing that Way, might not wet the Flesh and the Dressings, and that it might not be lodged in the Cavity from whence it proceeded, I introduced an Algaly into the Bladder, and there left it. After I had used the Cataplasms two or three Days, I substituted resolvent Plaisters in their stead, and put small Dossils into the Wound, covered with melted *Diachylon cum Gum. & Empl. de Mucilag.* All the Hardness decreased in less than three Weeks, after which I used only Injections with *Aq. Hord. & Aq. Vuln.* every Day.

My Attempts were fruitless, nothing could close the *Urethra*, and cicatrise the Fistula. I had been often tempted to introduce an Algaly into the Bladder, in order to fix the Course of the Urine, and to make two or three Stitches in the Lips of the Wound, with a Design to procure a speedy Reunion. But having communicated my Design to my Brothers, I was informed, that it had been attempted before without Success. Besides, the Dilatation of the *Urethra* could not have been drawn in by the most exact Suture ; and the Urine stagnating afresh in the dilated *Urethra*, new Petrifactions might probably ensue, and the third Disorder become worse than the two former.



OBSERV. LXXX.

Of a Distemper in the Bladder.

TH E Bladder may be susceptible of many different Diseases, and often very difficult to be known in their Beginning; nevertheless, it is only by this Knowledge that a Surgeon can properly undertake to perform a Cure. We may say in general, that it is the Property of Diseases in the Bladder, to create Pains almost equal, during the whole Time the Urine is discharging; whilst the Pains that solely depend upon a Stone in the Bladder are only felt with the first Drops, if the Stone is small, or when it is in the Neck, and with the last Drops when the Stone is large.

On the 23d of *May*, 1725, a Man of fifty-five Years of Age was received into the Hospital, who thought he was troubled with the Stone. He could not retain above three or four Spoonfuls of Urine, which obliged him to make Water every Instant, and in the Evacuation felt severe Pains, which began with the first Drop, and continued to the last. As the Patient complained of no other Symptom that could denote it was a Stone, I was in doubt whether he was attacked with that Distemper or not, and presumed that his Bladder was grown horny, or at least disposed to an Inflammation, since he drank plentifully of Wine.

To be better satisfied of his Condition, I probed him carefully, and found no Stone. I ordered him to be bled four Times, prescribed him a regular

Diet, and emollient Ptisans with Barley, Marsh-Mallow Roots, and Linseed, to correct the Acrimony of the Urine if possible, and by this Means to relax the Fibres of the Bladder, which I plainly perceived were contracted, since in probing him at a Time when he had a strong Inclination to make Water, I did not find a Drop.

Pursuant to this Indication, I injected a strong Decoction of Marsh-Mallow Roots, Morning and Evening. This Root leaves a Mucilage in the Urine, which fixing to the Sides of the Bladder, defends it from the Acrimony of fresh Urine, and relaxes the Fibres in the Nature of an emollient Cataplasm. A Patient cannot be probed Morning and Evening, without running the Hazard of inflaming the *Urethra* and Neck of the Bladder; therefore, to avoid this Inconveniency, I introduced the Catheter in the Morning, and drew it out at Night. In using the Injection, I desisted as soon as the Pain felt by the Patient convinced me that the Fibres of the Bladder were sufficiently distended; and left that Quantity of it in, for a Quarter of an Hour, more or less, according to the Patient's Necessity of making Water.

For the Space of a Fortnight, the Bladder, which at first could contain only two Spoonfuls of Injection, resumed by Degrees its natural Capacity, which I knew, by the Quantity of Injection admitted, without causing Pain. To the Decoction of Marsh-Mallows I added Barley-Water and *Mel Ros.* and lastly, Barly-Water with *Aq. Vuln.* The Patient left the Hospital in a Month's Time perfectly recovered.



OBSERV. LXXXI.

Of a Wen upon the Os Coccygis.

IN those Operations wherein it is necessary to take off a Part of the *Cuticula*, we cannot be too careful of it; the more we leave, the sooner a Cicatrice is formed. The Rule, however, is not without Exception.

On the 6th of *December*, 1725, a Man thirty-two Years of Age, was admitted into the Hospital, who had a Wen between his Buttocks, above the *Anus*, which he said he had at his Birth. Tho' that might be possible, it is more probable that it was from the Time of his Infancy. From as far as he could remember, he felt it of the Bigness of a small Nut, fixed upon the *Coccyx*. Since the Year 1723 it began to increase, and was arrived to that Magnitude, as to fill the whole Space from the Verge of the *Anus* where it finished, to six Fingers Breadth above the *Coccyx*. The Tumour was about half a Foot long, and three Inches broad, and was only troublesome to him on Horseback; because at that Time it pressed upon the Saddle; and indeed the Skin at the lower Part was inflamed, and worn so thin, that it seemed as tho' the *Cystis* would soon perforate, and a Fluctuation was perceivable.

When the Patient had been twice bled on the Arm, and purged, I performed the Operation.

At first I proposed only to divide the Skin, then loosen the *Cystis*, and extirpate it entirely without opening

opening it. To this End I pinched the Middle of the Tumour, jointly with an Assistant, and made a longitudinal Incision with my Bistoury ; but the Skin being extremely wasted, by Misfortune I opened the *Cystis* at the same Time, which evacuated a thick grumulous *Lympha*, being of the Colour of Suet, and of the Consistence of Honey.

The accidental Aperture of the *Cystis* did not alter my Design of extirpating the whole. Then I thrust the Index of my left Hand into the Cavity, and pinching the *Cystis* and Skin together on one Side, I made another Incision near the former, and thrusting the Index of my right Hand into this, I separated the *Cystis* both above and below ; then I lengthened the Incision in the Skin, in proportion to the Extent of the *Cystis* ; I performed the same by the other Side, by which Means the whole Circumference of it was almost separated. It was not very adherent to any other Place than the *Coccyx*.

I cut the greatest Part off, because its Bulk confined me in the Operation, and covered the Place where the Adhesion was ; at length I took the Remainder of the *Cystis* up between my Fingers, and separating it carefully with my Bistoury, I extirpated the whole. This afforded no Blood, because I had cut only the Skin, and what is separated with the Fingers, without a cutting Instrument, generally furnishes little Blood.

Thus I preserved most of the Skin, with very little Loss of Substance.

I dressed the Wound with dry Lint, and in the rest of the Treatment looked upon it only as a simple Wound. The two Bleedings, on the Day of the Operation, prevented all Accidents, and the Patient was cured in six Weeks.

R E M A R K S.

The Vulgar imagine, and are thoroughly persuaded, that all those Tumours with which we are born should be preserved, and that it is dangerous to extirpate them. This is an Error that ought to yield to Reason and Experience. Don't we amputate whole Limbs with Success? For stronger Reasons may we extirpate Tumours that are incommodious, or disposed to obviate Action.

You will not be surprized to see Wens increase, without any other Inconveniency than what arises from their Magnitude, and subsist a long Time without bursting, if we attentively consider the Laws of Circulation. We know, that those Tumours originally were only a Dilatation of a small Vessel containing a Fluid. This small Vessel, by becoming aneurismal or varicous, loses what little Elasticity it had, and, for that Reason, the Fluid, whose Course at first was only retarded, at length stagnates. As the Fluid continually flows into this Vessel, fresh Drops perpetually augment the Size of this small Tumour.

Whilst the Fluids remain inclosed in their Vessels, and are unmixed with any others, for the generality they are not changed into Pus. Thus it is that the arterial Blood in *Aneurisma's*, the venal in *Variaces*, and the *Lymph* in *Conglobulate* Glands, forming schirrhous Tumours, change their Nature very little for a long Time. But if one or more Vessels, that nourish the *Cystis*, open into it, a Fermentation will arise by the Mixture of these Liquors, whence a more or less laudable Pus will result, according to the different Combinations of the mixed Fluids. Thus it happens that all these Tumours at length
come

come to Suppuration, which is effected sooner or later, according to the Quantity or Quality of the fresh Liquid flowing into the *Cystis*.



O B S E R V. LXXXII.

Of a blind internal Fistula in Ano.

TH O' all Fistula's *in Ano* begin by smaller or larger Abscesses, formed in the Fat covering the *Rectum*, yet they differ in various Respects.

Authors mention blind internal Fistula's *in Ano*; but some have not described the proper Operation in that Case, and others are not sufficiently instructive in an Affair of so great an Importance. This Observation may serve as a Rule, at least in those Cases nearly parallel to this.

On the 13th of *February*, 1726. a Man was received into the Hospital who had evacuated Matter by the *Anus* for the space of eighteen Months, more or less, according to the Distance of Time between his Stools. He could not inform me how it began, having never felt any remarkable Pain. (It is not astonishing that a small Abscess should be formed in the Fat near the *Rectum*, without creating much Pain, the *Pus* being capable to extend itself without meeting any Resistance.) In examining the Distemper, I found an Hardness on the left Side, without an Inch of the *Anus*, which seemed to be three Fingers Breadth deep; the Buttock appeared sound, and there was no Alteration in the *Cuticula* or *Pannicula Adiposa*.

When

When I had prepared the Patient by two copious Bleedings, as he was robust, and purged him once, I performed the Operation.

Having placed him with his Belly against the Side of the Bed, his Feet upon the Ground, his Legs and Thighs asunder, and there held fast by two Assistant-Surgeons, I thrust an Imposthume Lancet into the Hardness which I had felt with my Finger, and thus made a compleat Fistula of a blind one : Then withdrawing the Lancet, I introduced a Probe in its Place with my Left Hand, and passed it as far as the Callosity ; in the midst whereof was a Cavity, round which I could move my Probe : Then I thrust the Index of my Right Hand into the *Anus*, and discovered the *Sinus* that passed from the Callosity into the *Rectum*.

That I might leave no Source of a Fistula behind, I pierced the Intestine with my Probe a little above the Fistula, and drawing it out by the *Anus*, finished the Operation in the usual Manner, cutting off or destroying the Callosities.

The Patient left the Hospital in the Beginning of *April*, perfectly cured.

R E M A R K.

The most preferable Method is, not to make use of the fistulous *Sinus* when it is callous ; in that Case you must pierce the Intestine above it ; for want whereof, you run an Hazard of leaving a Part of the Callosity, which may retard the Cure, or even render the Operation ineffectual.



OBSERV. LXXXIII.

Of a Fistula in Ano.

IN the Month of *April*, 1725, the King having done me the Honour to nominate me Surgeon-Major of the Hospital of *La Charité*, I saw a Man there, upon whom the Operation for a *Fistula in Ano* had been performed three Weeks before. The Wound seemed to be in good Condition, and lessened every Day, insomuch that the Cicatrice seemed almost formed. Nevertheless, examining it with Attention, I observed a little sanious *Pus* to proceed from a small *Sinus* in the Wound near the Cicatrice. Startled at this sanious Quality, I passed my Probe into the Hole, and found a *Sinus* along the *Intestinum Rectum*, four Fingers Breadth deep, which terminated in a Cavity surrounded with Callosities, and the Intestine was denudated the whole Length of the *Sinus*. I began the Operation again, performing it in the usual Manner, by dividing the Intestine in the whole Extent, where it was bare. I destroyed the Callosity as much as I possible could; and, to become Master of the Bottom of the Wound, I made an Incision into the Buttock, taking off the Angles. This furnished little Blood for that Instant, but an Hemorrhage succeeded six Hours after. I went immediately, and removing the Dressings, placed a small Compress dipped in styptick Water upon the Vessel that furnished the Blood, which I held with my Finger near half an Hour, that the Styptick might

might produce its Effect. The Hemorrhage being stopped, I supported the Compress with a threaded Dossil, and that by many others, and secured the whole with Compresses and a proper Bandage. I did not remove the Dressing for two Days, and then the Patient was dressed according to Art, and recovered in six Weeks. I was informed that he had bled five Times in the same Manner after the first Operation.

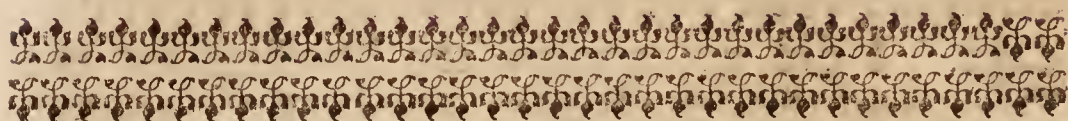
R E M A R K S.

There are two essential Precautions in the Cure of Fistula's. When the Operation is performed, all the Callosities must be effectually destroyed, especially those at the Bottom, because it will be too late to consume them some Days after, upon account of the external Lips approaching.

I think I ought to make a short Remark in this Place, in favour of young Students in Surgery. You must take care in the Dressing not to rub or irritate the Border of the divided Intestine, in placing the first Dossil. For which Reason, at each Dressing, especially during the first ten or twelve Days, you must introduce your Finger to the Intestine, fixing the Border with it; then passing the Dossil with your Forceps, between your Finger and the sound Buttock, till it reaches the Intestine itself, withdraw your Finger, and fix the Dossil in its Place, so that half will be in the Wound, and half in the *Rectum*. The Neglect of this last Precaution is capable to prevent the Cure, even when the Operation has been well performed.

With Regard to the Hemorrhage, which either accompanies or follows the Operation, many Methods are proposed to stop it. I have practised all, and find none more certain, or less painful, than
what

what I used to the Patient, who is the Subject of this Observation.



O B S E R V. LXXXIV.

Of a Venereal Fistula in Ano.

THE Suppuration of venereal Tumours is different from those not proceeding from the same Cause; and the Symptoms attending them are, generally speaking, not so active; because the venereal *Virus* is more disposed to fix, than to ferment those Fluids wherewith it is confounded.

On the 27th of *April*, 1725, a Servant came to the Hospital, who had a considerable Abscess on the Left Side of the *Anus*, which was not accompanied with Symptoms in proportion to its Magnitude. We know that large Abscesses, at the Beginning, are very troublesome to Patients by their excessive Pain, Tension, and Fever; Symptoms which subsist, and even increase more and more till the *Pus* is formed.

When the Patient was sent to the Hospital, the *Pus* was already formed, and the Skin like Dough, wherein the Impression of my Finger remained, and it was with Difficulty that the Fluctuation was to be felt.

I open'd it, and found the *Rectum* denudated more than three Fingers Breadth above the Verge of the *Anus*, and cut off all that Portion of the Intestine which was denudated, and all the Skin that was altered and separated from the adipous Substance.

The Wound proceeded very happily, and the Lips approached, and, in all Appearance, a certain Cure was to be expected ; when, in fifteen or twenty Days, an hard *Fungus* appear'd at the Bottom of the Wound, which rising in the Form of a Crown, seemed to be carcinomatous. I took it off with my Bistoury, but in a few Days it pushed out again ; and then I began to interrogate the Patient, and by the Description he gave me of the venereal Infections he had before, I knew it to be the *Lues*. Sudorifick Ptisans and *Æthiops Mineral* were administer'd in vain ; the *Fungus* visibly returned as I consumed it, therefore I advised him to a Salivation.

He went from the Hospital to a proper Place, where he was salivated, and when he came from thence, only a small Portion of the Wound remained to be cicatrised.



O B S E R V. LXXXV.

Of a fistulous and venereal Abscess.

IN the Month of *September*, 1725, a Patient was sent to *La Charité*, who had a gangrenous Abscess in *Ano*, which began in the same Manner as that mentioned in the preceding Observation. I interrogated him as to his Manner of Life ; but he was discreet, and confessed nothing that could give me the least Reason to think his Case venereal ; therefore, after he was prepared according to Custom, I performed the Operation.

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In

In twelve Days the Lips of the Wound grew callous, and a *Fungus* arose at the Bottom. To discover the Truth of what he had concealed from me, I thought I could deceive him in my Turn, and told him, that those Symptoms were certain Signs of the *Lues Venerea*, and that he could not be cured without taking proper Remedies to subdue the Cause of his Disease; and the Wound should be dressed at the same Time. He imagined that he should stay at the Hospital to pass thro' this Course, and confess'd that he had two Chancres and a *Gonorrhœa* two Months before. Then I told him that he could not stay in the Hospital, and by my Advice he went to the *Petits Maisons*, where he was salivated, and perfectly cured.

R E M A R K S.

Abcesses formed near the *Anus*, and that pierce of themselves, degenerate into Fistula's in Time, and occasion Callosities: The same Thing would have happened to those two, of whom I have been speaking, had I not performed the Operations that seemed necessary.

If then old Fistula's, not venereal, are callous, as well as those that are, the Surgeon ought first to examine his Patient, that he may take his Measures accordingly.

If it be a simple Fistula, the Operation may be performed; but when you know it to be venereal, I think it most prudent to begin by treating the Patient for the *Lues*. Some of the last Kind, that were recent, have been known to be cured with all the other venereal Symptoms, and have had no farther Occasion for an Operation.

If by a methodical Course the Fistula does not heal, the Operation must be afterwards performed.

OBSE RV.



O B S E R V. LXXXVI.

Of a compleat Fistula in Ano, caused by an extraneous Body in the Rectum. Communicated by Mr. D'Estendau, Surgeon at the Hague.

IN the Month of *December*, 1728, I was called to a Gentleman of fifty Years of Age to cure him of an external *Fistula in Ano*, with which he had been afflicted for eight or nine Months. He was emaciated and become almost hectic, partly from the Pain he endured, and partly from a slow Fever that never ceased; so that his Life was not long expected.

When I had probed and carefully examined it, I judged there was no Time to lose before the Operation was performed; especially, because this *Fistula*, whose external Orifice was two Inches from the *Anus* on the right Side, and could not gain farther, without passing the Limits of the Operation, which would then become impracticable, since the *Fistula* pierced the *Sphincter* as far as I could reach with my Finger. I prepared my Patient immediately, and then performed the Operation, in Presence of Mr. *Schwink*. Doctor of Physick, and Professor of Anatomy at the *Hague*.

When I thought the Operation was finished, I thrust my Finger into the Wound to examine whether I had sufficiently defrænated the *Sinus's*, and scarified the Sides of the *Fistula*, and was much surpris'd to feel an extraneous Body at the Bottom

of the Wound, which was hard, pointed, and wedged in it. This obliged me to make an Incision in order to disengage it, without which it could not be extracted, and then drew out a Scale of Bone, pointed at each End like a Lancet, two Fingers Breadth long, and a little broader and thicker than the Blade of a Penknife. It seemed, by its Hardness and Appearance, to be the Scale of a Beef-bone. I enquired of the Patient whether he remembered to have swallowed that Bone, who answered in the Negative; but he remembered very well, that some Time before the Manifestation of the Fistula, he felt a Pain on a sudden like a Stab with a Dagger near the *Rectum*, and thought he should have fainted away by the Excess of it. It was at this Time, without Doubt, that the Bone pierced the Intestine, pricked the neighbouring Parts, caused an Inflammation, and at length an Abscess, which degenerated into a Fistula.

I dressed the Patient, and afterwards prescribed him proper Medicines, by which Means he recovered the 30th of *January*, 1729, which was the fiftieth Day after the Operation.



O B S E R V. LXXXVII.

Of the Amputation of the Hæmorrhoides. An Observation found amongst my Father's Papers after his Death.

THE Evacuation of Blood by the *Hæmorrhoidal* Vessels is often an useful Relief to Nature. But if this Evacuation is too considerable,

it becomes hurtful, and ruins the Constitution, so that we are obliged to stop it. This Observation furnishes us with an Example.

A Lady had been afflicted with internal *Hæmorrhoides* for several Years, which started out upon the least Effort she made, and even when her Stays were laced. These *Hæmorrhoides* were ulcerated, and the *Sphincter*, or internal Part of the *Anus*, was grown callous; the Artery supplying them with Blood often opened, and caused considerable *Hæmorrhages*, and consequently weakened the Patient; therefore I resolved upon the Extirpation.

To make the *Hæmorrhoides* appear, I desired her to put on her Stays, and lace them tight. Then I took hold of each of the *Hæmorrhoides* with an Hook, one after the other, and eradicated them. To command the Blood, and to introduce Medicines more easily to the Artery, which was as big as my little Finger; I made an Incision, beginning at the *Anus*, and inclining towards the Buttocks; and immediately put a thick Parcel of Lint upon the Vessel, dipp'd in the Essence of *Rabel*, and supported this by others dipp'd in the Styptick Water; but as I could not make a sufficient Pressure, the Blood entered into the Intestines, which occasioned a slight Cholick. Then I loosened all the Dressings, and she evacuated the Blood contained in the Intestines. And now finding that all the small Vessels were closed, and that the Artery alone occasioned the *Hæmorrhage*, I dipped a small Compress into the Essence of *Rabel*, and placed it in the Fundament upon the Vessel itself, upon which a Servant kept her Finger five or six Hours. Afterwards I dressed her in the usual manner, with Dressings dipped in the Yolk of an Egg, for two Days.

Some Clods of Blood were afterwards discharged with the Excrements, that were very thin. I took off the Compresses the fourth Day, and the sixth the Wound was mundified; which I continued to dress in the common manner till it was healed.



O B S E R V. LXXXVIII.

Of an Hæmorrhoid. An Observation found amongst my Father's Papers.

A Gentleman above sixty Years of Age was tormented with internal *Hæmorrhoides*; they had forced the Fundament down when he went backwards, for a very considerable Time, and then a Substance appeared in the Shape of a spongy Excrescence of Flesh as big as my Fist, and suspended by the Vessels that nourished it, in the Nature of a Bunch of Grapes hanging by the Stalk. The Patient lost Abundance of Blood and Serosity, which had so debilitated him, that he could hardly walk. He thrust this Excrescence again into the *Anus*, after each Motion downwards, with great Difficulty; and when it was entered, he endured no more Pain.

Mr. *Bassiere*, and several others, had seen him, and prescribed such Medicines as they thought most proper to stop the Bleeding, prevent the Ulceration, and contract the Excrescence; but this had no Effect.

I performed the Operation in the Presence of Messieurs *Dodart*, Physician to the King, *Burlet*, Doctor

Doctor of Physick, and *Malavil* the Surgeon. First I tied the Artery that nourished the Excre-
scence, and consequently its Root ; then I extir-
pated the *Hæmorrhoides*, and reduced the Verge of
the *Anus*, with a Portion of the *Rectum*, which
made a Protuberance on the Outside, and put a
large Dossil of Lint upon it dipped in styptick
Water.

I drew out the Lint in two Days, which was
tied with Thread of a different Colour from that
of the Excrecence, that I might readily distinguish
them. The Patient was six Days without any
Motion backwards, and on the eighth the Ligature
separated. Injections with Vulnerary Water were
afterwards used for a few Days. From that Time
the Patient has not been in the least incommoded,
the *Prolapsus Ani* never returned, and he has enjoy-
ed a good State of Health ever since.



OBSERV. LXXXIX.

*Of a Wound in the Stomach. Communicated by Mr.
Menteville, sworn Surgeon at Paris.*

A Proper Regimen is one of the most necessary
Points to be observed in the Cure of
Wounds, and a due Regulation of it belongs only
to those who perfectly understand the Structure
and Use of the Parts affected ; which you will see
in the following Observation.

A young Man, eighteen or twenty Years of Age,
came to me, to be dressed of a Wound he had re-
ceived with a Sword in the superior Part of the

Epigastrick Region, near the *Cartilago Xiphoides*. The Thrust had penetrated across the Cavity, and the Sword went out between the third and fourth of the false Ribs on the left Side, about eight Fingers Breadth from the Spine. The Patient's Stomach was very full, the Effusion of Blood very little, and a Sort of brown Liquid issued from the anterior Wound; I received a little of it upon a Piece of Linen, and smelling to it, found a Scent of *Fenouillette*; and inquiring of those who accompanied him, whether he had drank any spirituous Liquor, they answered that he had, after eating a very hearty Supper.

He vomited instantly, and what was discharged had the same Odour with that proceeding from the Wound.

Hence I judged, that the Stomach was wounded; and considering the Situation of the Thrust in two Places, I dressed them like simple Wounds; and the Patient having no bad Symptoms, I imagined it not impossible to cure him, because the Wound of the Stomach, which might be half an Inch in Extent when it was full, would not be above half that Extent, or perhaps less, when it was empty, and the Fibres of that Part approached by their natural Spring. I bled the Patient frequently, and as copiously as his Strength would permit, and allowed him only one Spoonful of Pufan at a Time, and as much Broth and Jelly alternately every Quarter of an Hour, and sometimes gave him nourishing Clysters.

The Patient was without Fever, or bad Symptoms for seven Days, being extraordinary gay; his Belly was flat and soft, and the external Wounds were almost cicatrised, which afforded me reasonable Hopes of his Recovery.

He began to be displeased at my Resolution of refusing him Nourishment, which he so earnestly requested.

requested. Some of his Friends insisted upon it that he should have more allowed him, saying, that the young Man was weakened by the Medicines he had taken for a particular Distemper, and was in a Course of them when he was wounded.

I withstood their Sollicitations; but without my Knowledge, they gave him a Toast with Wine and Sugar, Plenty of Drink, and Porringers of Soup and Broth.

A Fever supervened, the Belly became swelled, Respiration difficult, attended with a dry Cough, and a prodigious Thirst; and notwithstanding all my Endeavours, the Symptoms increased to that Degree, that the Patient died the tenth Day after the Wound.

His Body was opened, and we found several Pints of Chyle, like Milk mixed with Bile, lodged in the Cavity; the Stomach was perforated in its anterior Part, at some Distance from its lower Orifice; it was perforated again in the posterior Part, near the same Distance from the superior Orifice. The Passage of the Sword was near the splenick Vessels, across the *Epiploon*, and piercing the *Diaphragma*, the Distance of three or four Fingers Breadth from the false Ribs, penetrated into the *Thorax*, without offending the Lungs, and passed out, as we said before, between the third and fourth of the false Ribs. What's very remarkable, is, that the *Epiploon* was engaged in the *Diaphragma*, and made an *Hernia* in the *Thorax*.

It is evident, that all the Disorders happened only by the large Quantity of Aliments he took; which occasioning a Distension in the Stomach, divided those Fibres again which began to reunite.

The considerable Expansion of Liquid in the Cavity, which was the Consequence, having distended the Muscles of the lower Belly beyond their natural Spring, might occasion a Compression
upon

upon the *Diaphragma*, and produce the Oppression and Cough.

The Patient having been seven Days without Accident, there is Reason to believe, that if a proper Regimen had been observed some time longer, he might have recovered; and having Strength sufficient to endure this Abstinence a few Days more, the Wounds of the Stomach would have re-united by that Time.

With regard to the *Epiploon* that was engaged in the *Diaphragma*; this might probably have disengaged itself, or have united with the Wound of the *Diaphragma*, the small Portion of it that formed the *Hernia* in the *Tborax*, not being capable of doing much Injury. We know that Wounds in the fleshy Parts of the *Diaphragma* frequently re-unite.

Hence we may conclude, that in some Cases, we cannot be too exact in a Regimen of Diet, which ought to be proportioned to the different Distempers and Parts affected.



O B S E R V. XC.

Of a Wound in the lower Belly, the Omentum issuing out of it.

G *Astroraphia* is an Operation to which Authors advise us in the Cure of Wounds that penetrate the *Abdomen*, when any of the Parts it contains fall into the Wound.

They propose, when the Wound is not sufficiently large, to allow of the Reduction of the Parts, to dilate it, and reduce them; and then to make one or more Sutures, to support the Lips of the

the Wound brought together : But in some Cases we are obliged to deviate from this Rule ; and the *Omentum* alone coming out, does not require the same Attention as the Intestines, or any other Part that should come out singly, or with it. The following Observation is a Proof of what I advance.

In the Month of *August*, 1730, I was sent for to dress a Servant, who being delirious, had stabbed himself in five Places in the Belly with a Knife. One of the Wounds was about two Inches above the Navel, three Fingers Breadth of the *Omentum* passing through it. The Wound was sufficiently narrow to press gently upon the *Omentum*, like a loose Ligature. Two of the other Wounds penetrated into the Cavity, but none of its Contents issued out, and the two others affected only the Teguments.

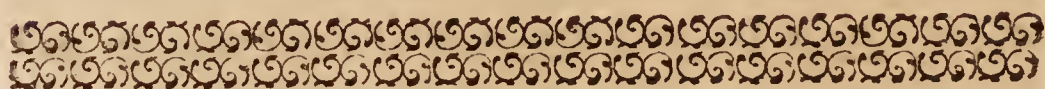
The different Symptoms of the Distemper, as well as those depending upon the Wounds, were moderated by Bleedings, and other convenient Remedies ; and the four last mentioned were managed according to Art.

With Respect to that which afforded a Passage to the *Omentum*, instead of thinking to reduce the Part, I judged it most proper to take it off. I could have made a Ligature upon it instantly ; but besides its being useless, since the opening of the Skin, which insensibly contracts, might in a few Days supply that Defect, I apprehended that the Swelling of the *Omentum* above the Ligature (for one more or less considerable always happens) I apprehended, I say, that it might contribute to the Tumefaction, or Inflammation of the lower Belly, which might happen as the Consequence of the other Wounds.

Therefore I only prevented a larger Portion of the *Omentum* from coming out, and in seven or eight Days, the external Wound being contracted,
the

the *Omentum* began to wither ; then I made a Ligature upon it even with the Skin. The Piece grew loose, and fell off the fourth Day.

I omit mentioning the Bleedings, and other Remedies administred according to their different Necessities. The Wound we are speaking of, was cicatrized the twelfth Day after the Ligature, and the Remainder in a short time.



O B S E R V. XCI.

Of a Wound in the Abdomen with a Sword.

ON Sunday the 17th of *August*, 1725, a Soldier of the Guards was brought to the Hospital, who had received a Thrust with a Sword in the Afternoon. He was still in Liquor when they brought him, and therefore I could receive no Information, from whence I might judge what Parts were affected.

The Sword entered three Fingers Breadth below the *Cartilago Xiphoïdes*, penetrating into the Cavity through the *Musculus Rectus* on the left Side : I only widened the external Orifice at first, which tended obliquely from above downwards, ordering him to be instantly bled, and the Bleeding to be repeated early next Morning. My Colleague, Mr. *Guerin*, being Surgeon to the Regiment of Guards to which the Soldier belonged, I gave him Notice, that I might consult with him. We had no Symptom that indicated a Wound in any of the *Viscera* : But the Patient was extremely faint ; and altho' he was perfectly in his Senses, he did not vouchsafe
even

even to speak for what he wanted, and made an Effort to answer those Questions that were asked him.

We unanimously agreed to keep plain Dressings, frequent Bleedings, Clysters, and a proper Regimen, to prevent Inflammations: But the Patient died the third Day.

I opened him, and found that the Sword, which, as I said before, entered three Fingers Breadth below the *Cartilago Xiphoides*, pierced the *Omentum*, the *Jejunum*, and the Mesentery, and had opened a Branch of the mesenterick Vein, which returns from the winding of the *Colon*, and ends at the left *Sacrolumbaris*. Moreover, we found about four Pounds of Blood extravasated in the *Abdomen*.

R E M A R K S.

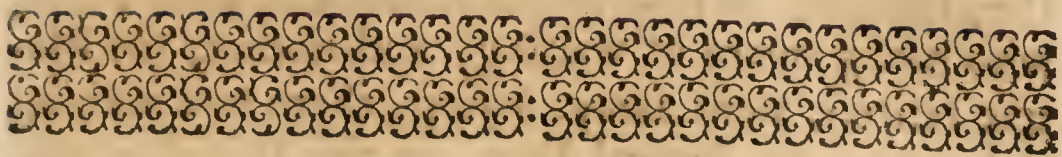
Not discovering any other Cause of his Death than the extravasated Blood, it must, without Doubt, be occasioned by the Wound in the Vessel. The opening of an Artery, or a large Vein, might have occasioned a more sudden Death; but a small Vein furnishes Blood gently, and by Degrees: What Resource is there in such a Case?

I think this Faintness mentioned, ought to be looked upon, when it happens in Wounds that penetrate, as a certain Sign of the Aperture of some small Vessel, which continually pours out Blood. What daily happens with regard to Phlebotomy, will confirm what I advance. If a Fainting seizes a Person that is bled, I speak of a Fainting without Loss of Senses, the Blood no longer springs from the Vein in an Arch, but runs down the Arm; it signifies nothing to make your Patient lie down, and endeavour to revive him with Hartshorn; all that you do is in vain, the Faintness still subsists, unless you stop the Blood, by placing your Finger
upon

upon the Orifice, or filleting the Arm. The same Thing ought to happen, when a small Vessel is opened in the internal Parts, which furnishes Blood continually, and cannot be stopped.

I have seen a Patient in the like Faintness for six Days, who had received a Wound with a Sword between the first and second Ribs near the *Sternum*. The Point of the Sword had opened the second intercostal Artery below the *Scapula*, and the Blood ran gently into the *Thorax*. The fourth Day certain Signs of an Extravasation in the *Thorax* appearing, without being able to guess what Vessel was opened, I performed the Operation for the *Empyema*, and evacuated about a Pint of Blood. The Patient died the eighth Day, and I could discover no other Signs of his Death, than a slight Inflammation of the *Pleura*. This slight Inflammation of the *Pleura*, and the Loss of two or three Pints of Blood in four Days, which is about the Quantity of seven or eight Bleedings, and no more, not appearing to me to be the Cause of his Death, cannot we attribute it to that *Deliquium* mentioned, which continued from the Instant of the Wound to the Time of his Death?





O B S E R V. XCII.

Of a particular Birth that happened within a League of Pontoise, at the Village de Lieux, in the Diocess of Paris, the 6th of May, 1726. Communicated by Mr. Metivier, sworn Surgeon at Paris, and Surgeon-Major of the Hotel Dieu at Pontoise.

A Woman of forty-three Years of Age, and of a small Stature, who had had several hard Labours, being pregnant of a thirteenth Child, and believing she was near her Time, the 22d of April, perceived a Flooding, and the 23d had an excessive Loss of Blood. The Midwife sent for the Surgeon of the neighbouring Village, who bled the Patient. Pains, like Labour-Pains, came on by Degrees, which lasted four or five Days, and ended by a very foetid and copious *Diarrhæa*, which much weakened the Patient; all Things appearing at the same Time disposed for the Birth of the Child. The Fever that supervened was very considerable, and cast her into an excessive Faintness and Loss of Strength, accompanied with a *Nausea*. As I was passing thro' the Village the 29th, the Lady of the Place desired me to visit the Patient, whom I found in the Condition described above.

Tho' the external Parts were disposed for the Labour, nevertheless I could not feel the internal Orifice of the *Matrix*; it was raised again considerably, neither could I perceive the Child to move; this made me believe the Child was dead, notwithstanding the Mother's Imagination, who thought she

she felt it stir. I withdrew at this Time, because they had sent to *Pontoise* for a Midwife from *Paris*, who being weary of waiting, and finding the *Matrix* retired, went away, saying, there was nothing to be done for several Days, as the *Diarrhæa* and Fever continued.

The 13th of *May* in the Morning, the Husband changing the Linen, found the *Placenta* hard, dried, and very foetid. The common Midwife had likewise left the Woman, and expressly forbid the Husband to have Recourse to a Surgeon, and that it would not be long before she returned. The 16th of *May*, as I was passing thro' the Village, I saw the Husband, who had been for a Plaister to apply upon a Swelling his Wife had upon her Belly: When I entered the Room, I smelt a prodigious Stench, which I believed to proceed from the *Diarrhæa*, and gave me a melancholy Idea of the Woman's Case. I found a Tumour situated upon the *Linea Alba*, a Finger's Breadth below the Navel: It was black, and the Gangrene extended three Fingers Breadth circularly, and had discharged Abundance of Serosity.

I cut off all that was gangrened with my Scissors, and found something that resisted. The Gangrene being removed, I drew the *Fœtus* by the Shoulder that presented itself, and the Arm separated from the Body. I completed the Extraction of the whole Body, however, which lay on the right Side, and drew out the Head in three separate Pieces, all flattened except the *Occipital* Bone, which had preserved a little of its Curvature. The Substance of the *Cerebrum* and *Cerebellum* was entirely dissolved, and mixed with the *Pus* that filled the Cavity containing the *Fœtus*. The excessive Stench would not allow me to examine the little Carcase any longer, nor to discover what Sex it was. I
ordered

ordered it to be taken away immediately, and finished removing all the Putrefaction, which was extended much further in the internal Part, by the Compression of that extraneous Body, than on the external.

I washed the Parts with warm Wine and *Aq. Vuln.* having nothing else at Hand. The Dejections, or Suppurations, were very infectious for five or six Days, as well by this Aperture, as by the *Vagina*, and consisted of a liquid white *Pus*, and very acrimonious, which caused considerable Inflammations in those Parts where it was lodged. This filthy Stench gradually dissipated by the Suppuration, and grew sweeter by the vulnerary and aromatick Injections used by both Orifices. There is one Thing particular, *viz.* that sometimes the Injections passed freely from below upwards, and from above downwards, but not at every Dressing. With all the Pains I took to find out which Way they passed sometimes, I could not discover it, nor the Orifice through which the Child had passed from the *Uterus*. Whether it was formed and nourished in the *Tuba Fallopiana*, or whether it had made a Passage thro' the *Uterus*, is what I don't pretend to explain.

Without reasoning any longer upon this Subject, my sole Aim was to procure a Re-union ; an Affair that cost me Abundance of Trouble to compleat ; because the Woman rising out of her Bed, the Aperture dilated itself by the Weight of the Parts bearing downwards. Nevertheless, Nature performed her Part, having much advanced the Cicatrice, and the Woman also by her careful Management, so that she perfectly recovered, and enjoys a good State of Health.



OF THE
INFERIOR EXTREMITIES.

OBSERV. XCIII.

*Of an Anchylosis in the Articulation of the Femur
with the Os Ilion.*



OT Pumping is a Remedy very little used, whether it be for want of knowing its Advantages, or from the Difficulty of performing it properly, which has often rendered it unsuccessful. It is very beneficial, however, in many Cases, and especially in *Anchyloses*, before they arrive to a perfect Hardness. A Series of Time is required before it can produce any considerable Effect, and must be often repeated, when it begins to operate ; having frequently proved unsuccessful, for want of being long enough continued.

In the Month of *January*, 1725, a Man aged twenty-one Years, felt an acute Pain in his right Groin, which subsisted in the same Place during the Space of a Fortnight, and then removed its Situation. It varied often, affecting the Thigh one
Time,

Time, and the *Rotula* another, and then returned to its first Point again. After he was bled and purged, they bathed the Part with Lavender Water for above three Weeks. The Patient finding no Relief, but, on the contrary, that his Leg and Thigh were emaciated, he declined the Use of it, and put himself under the Hands of several Empiricks for near three Months, who robbed him of his Money, without doing any Service. These Gentlemen (according to themselves) have infallible *Nostrums*; but if they are so, it consists in draining the Patients Purses, who place a Confidence in them. The last Remedy he used was dry Baths, such as are performed with Spirit of Wine; which being attended with the same Success as the former, he applied himself to me.

When I first saw him, he could not move his Thigh without violent Pains, nor suffer the least Violence to be used in moving it; the superior Part, to the Spine of the *Ilion*, was so prodigiously swelled, as to be twice its ordinary Magnitude. It was exceedingly distended, and as hard as a Stone; the Pain was very deep, but not augmented when the Tumour was handled.

What increased the Bulk of the Thigh to that Extent in its superior Part, was, probably, a large Quantity of *Lympha* inspissated and infiltrated in the Interstices of the Muscles; perhaps also that the *Capsula* embracing the Articulation, was filled with *Sinovia*, as well as the *Cavitas Cotyloides*. The Projection of the *Trocanter Major* externally, afforded some Reason to believe that the Thigh was luxated. (This Sort of Luxation is often seen from an internal Cause, whereby the Head of the *Femur* is gradually thrust out of its Cavity.) The internal Part of the Thigh was emaciated to such a Degree, that the Bone seemed to be covered only by

the Skin, and might be embraced with one Hand. The Leg was emaciated also.

Seeing the Inutility of all the Remedies hitherto employed, I advised the Patient to go to *Bourbon* to try the Hot Pump, which he had not yet attempted. He told me the Impossibility there was of undertaking that Journey, both because his Circumstances could not afford it, neither would the Excess of his Pains suffer him to be moved. This gave me a Thought of erecting a Pump at my own House, which might, in some Measure, answer the Use of the hot Mineral Waters, and supply the Want of them.

The Place being prepared with all necessary Conveniencies, I put the Patient into *La Charité*, from whence I could remove him every Day to my House. I ordered him to be twice bled and purged, and the 12th of *August* began to pump upon him for the Space of an Hour; and when it was finished, he went to Bed, where the whole Part affected was covered with Bladders, half filled with hot Water, to a supportable Degree. These Bladders were often renewed in the Space of two Hours, and when they were removed, the Part was suffered to perspire another Hour, covered only with warm Linen. Then the Patient was brought back to *La Charité*, where the Bladders were again renewed in the Evening.

When he had been pumped a few Times, he began to lean upon his Leg with less Pain; but always by the Assistance of Crutches, and without any Motion in the Articulation.

The Part affected sweated considerably at each Pumping, and appeared much softer after it. The Patient had not used this Method above a dozen Times, but the Swelling on the superior Part of the Thigh began visibly to diminish.

Then

Then I ordered the Motion of the Articulation to be gently forced, notwithstanding the Pain; tho' by Degrees, and a little at a Time; moreover, I purged him twice. These Precautions, united with the Pumping, dissolved the *Sinovia*, so that the Patient could move his Thigh a little without any Assistance. In proportion as the Tumour diminished, the Leg and Thigh grew more fleshy; in short, within the Space of four Months, during which he was pumped between forty and fifty Times, suffering him now and then to repose a Day or two, the Distemper so far yielded, that the Patient was able to walk very fast by the Help of a Cane only, feeling no more Pain, and having this Leg and Thigh answerable to the other.



OBSERV. XCIV.

Of an Anchylosis in the Foot.

IN the Year 1728, a Gentleman belonging to the King had an inspissated *Sinovia* upon his right Foot, which not only possessed the Articulation, but spread over the whole Foot, so that the *Anchylosis* was almost formed.

As he was ready to depart for *Bourbon* to drink the Waters, by the Advice of Mr. *De la Peyronnie*, they mentioned the Pump I had erected at my own House, and having viewed it, the Patient was prepossessed in Favour of the Effect it might produce, and deferred his Journey for several Days, to experience it.

Twelve Pumpings, with the same Precautions observed in the preceding Case, so far cured him, that he laid the Thoughts of his Journey aside, and has felt nothing since.

R E M A R K S.

You ought not to be surprized at the sudden Effect of Pumping, properly managed; three Things act at the same Time upon the stagnated and inspissated Fluids.

First, The Falling of a Column of Water of an Inch Diameter, from seven or eight Feet high, abrades and comminutes the inspissated Juices, by its Force and Compression.

Secondly, The Nature of the Water may contribute to produce this Effect, if the active Particles contained in it can be admitted into the Texture of the Part affected: And is there any Thing that can sooner make it penetrate, than the precipitate Fall of a Column of Water upon it?

Thirdly, The Heat of the Water, which insinuates itself into the Part affected, and warms it to the very Bottom, assists and accelerates the progressive Motion of all the Fluids; perhaps even the intestine Motion of such as have not entirely lost it, and communicates a Motion to those that are stagnated.

From hence it follows, that one Part of the stagnated Fluid transpires externally, whilst another takes the Course of the Circulation, and thus the Part is gradually disengaged. It is true indeed, that every Patient does not receive the same Relief; but if the Distemper begins to give way after a few Pumpings, the Number is not to be regarded. Several Persons who have reaped no Benefit from the Pumps at *Bourbon*, and other
Places,

Places have returned unrelieved for want of using it often enough, independent of other Obstacles opposing the Cure.



OBSERV. XCV.

Of a Caries in the Os Ilion. Communicated by Mr. Leaulté, sworn Surgeon at Paris.

LARGE and tedious Suppurations often destroy the Patient: The Symptoms generally attending these long Suppurations are slow or intermitting Fevers, sometimes accompanied with Shiverings, often with *Insomnia*, or *Diarrhæas*, terminating in colliquative Sweats, which drain the Patient, and bring him into a *Marasmus*; the Ulcer insensibly dries, and, at length, the Patient perishes; therefore the Cause of these Symptoms ought to be discovered in Time.

A Depravity in the Fluids may have a great Share in producing these Symptoms; but you will often find them to arise from a continual Use of putrefying Medicines, and oftner from the Surgeon's Obstinacy, by keeping Wounds too long open, to wait for Exfoliations; and, too often, by the Application of irritating Remedies, and stuffing Dressings, &c. Neither is it impossible, but a severe Regimen, too long continued, may produce the like Accidents.

In 1718, during the Campaign in *Spain*, a young Gentleman, Colonel of Foot, having fatigued himself very much during the Heat of the Summer, both in his Duty, and to satisfy his Pas-

sion for Shooting, and having walked a long Time in a marshy Place, was seized with a Pain in his Loins, which was thought to be rheumatick. Being carried to *Bayonne*, where his Regiment was to enter into Winter-Quarters, the Physicians and Surgeons of the Place used their utmost Endeavours to relieve him ; but not succeeding, they advised him to the Bath at *Aix*, whither he was removed. He could not endure the Water half an Hour, his Pain being so very exquisite, that he was ready to faint. He tried it again a second Time, and it produced the same Effect. The Pain increased, and a Tumour appeared upon the right Loin, which induced the Patient to return to *Bayonne*, where the Surgeons employed all the Remedies they thought convenient. After he had undergone the most torturing Pains for a long Time, they ceased on a sudden, and the Tumour disappeared.

The Patient was tolerably well for some Time, and rose out of his Bed ; but another Tumour happened upon the superior and external Part of the Thigh.

They applied Cataplasms to this; and when the Pus was formed, opened it with one Stroke of a Lancet, which, for a critical Abscess, was not sufficient. A large Quantity of Matter was evacuated, and the Patient was relieved ; but the Suppuration daily diminished, and this too small Orifice was soon closed.

The Gentleman being well enough to recreate himself a little with his Friends, and playing with them on Twelfth-Day Eve, 1719, he found his Thigh wet on a sudden, by a large Quantity of Pus which proceeded from the Re-opening of the Wound. The Case was examined again by those who had dressed him before, who found, by probing the *Sinus*, that the Cavity from whence the Matter

ter issued, extended upwards to the Top of the *Os Ilion*, which they opened to the full Extent: But in the End, as the *Pus* proceeded from a more remote Part, and the Bone was found bare for a considerable Space, they made Incisions to right and left, and across, to place the whole in open View. By this Means they discovered a Cavity on the Side of the internal Surface of the Bone, from whence the Matter was discharged. At length they found another *Sinus* which ascended along the Loins. This they thought proper to open, and to apply the actual Cautery upon the Crest of the *Os Ilion* to advance the Exfoliation, which was repeated several Times. The Dressings were still the same, both as to the Medicines, and stuffing the Wound with Lint. During this Time, the Patient endured all the Symptoms that could possibly attend a large Wound, and long Suppurations.

A Fever always subsisted, sometimes continual, and sometimes intermittent, attended with Shiverings and Sweats, with very little Sleep, notwithstanding the Hypnotick Draughts constantly repeated. Moreover, he was attacked with an Humour upon his Lungs, accompanied with a *Diarrhæa*, which lasted several Days, and had almost destroyed the Patient, who visibly decayed. The Surgeons despaired of a Cure, and yet threatened him with another Incision, upon account of a fresh *Sinus*, which passed internally along the Surface of the *Os Ischion*.

The Gentleman's Relations being informed of his deplorable Condition, required the Attendance of a Surgeon from *Paris*. I was fixed upon to go, and arrived at *Bayonne* on *Easter Tuesday*; and this was his Condition when I first saw him.

With Difficulty could he express his Joy to see me, either by the Motion of his Hand, or the Inclination

clination of his Head: His Pulse was very low, though frequent; his Skin dry and scorching; his Voice sunk so low, that you could not hear him speak without putting your Ear close to his Mouth. The Physicians and Surgeons who attended him being assembled, informed me of what I have related, and shewed me the Wound.

They drew out a vast Number of Dossils and Pledgets, from the whole Extent of the Wound; from the *Sinus* which passed along the internal Surface of the *Ischion*, a long Tent; and several Dossils from the *Sinus* that went upwards to the Loins. This *Sinus* they injected and dressed; but I ordered them to diminish the Tents in Length and Thickness, and the Number of Dossils, tho' not to suppress them on a sudden. They desired me to observe the Crest of the *Os Ilion*, which they had often cauterised; it was dry and black, and though the Cautery had been applied six Weeks, there was not the least Appearance of an approaching Exfoliation.

The Dressings being finished, I told the Gentleman, that considering the Patient's deplorable Condition, they could not do better than to put him into a Milk Diet. Mr. *Standos*, Physician to the Queen Dowager of *Spain*, who resides at *Bayonne*, said he had experienced the Milk, and the Patient could not endure it: But I answered him, that his Stomach should be first prepared by such Remedies as would make it in a Condition to receive it, which I proposed to do by the *Kermes*; that he might take the Milk mixed at first, and diminish the Mixture by Degrees, and give it afterward for common Nourishment; that I had certain Proofs of the Success of this Practice, and depended very much upon it.

The Patient took a Grain of *Kermes* that Night, and another the next Morning, which produced no Vomiting, and only gave him three gentle Motions downwards. The third Day, after taking three Grains, I gave him an Ounce and half of Manna, and that Evening gave him the Milk mixed, by which Means he passed the Night more quietly, and slumbered about four Hours. The next Day, and the following Days, I continued the Use of the Milk, which more and more increased the Patient's Tranquillity. His dry Skin became moist, whence I comprehended, that the Milk passed through the Pores, since it occasioned a gentle Transpiration. In Effect, the Patient began to recover his Strength, and his Voice might be heard. I had ordered the Dossils and Tents to be laid aside, with the Injections and other Medicaments : The Wounds were dressed dry, the *Sinus's* were closed, and the Lips of the Wounds approached ; the *Pus*, which was considerably diminished, had acquired a good Consistence, the Fever was gone, and nothing required our Attention but the Crest of the *Os Ilion*, to which the Cautery had been applied ; this alone prevented the Union of all the Parts. I resolved to take off the black Superficies, whose under Part was found and red. After which, every Thing proceeded so happily, that the Patient was in a Way of Recovery in a short Time.

Amidst the numerous Symptoms that afflicted this Patient, I have not mentioned one of the worst, which attacked him by Fits ; this was Catchings and Cramps, accompanied with violent Constrictions, and acute Pains upon the Soles of the Feet.

No Topicks gave him any Relief ; nothing but certain Motions given to his Feet, by moving them to and fro by the Toes as long as the Fit lasted. This Symptom continued sometimes three or four Hours,

Hours, and was more or less violent, according as the Sea Winds blew. (For *Bayonne* is a Port surrounded with Mountains, where certain pernicious Winds blow from the Sea.)

At length I came to give him all Milk, warm from the Cow, for his common Nourishment; which produced so good an Effect, that his Strength daily increased. He felt no Pains, but when those pernicious Winds reigned. We departed from *Bayonne*, and arrived at *Paris* in twenty-five Days. The Patient endured the Voyage without finding himself fatigued, and made but two Days Stay from *Bayonne* to *Bordeaux*, where he was purged. I made no Alteration either as to his Regimen or Dressings; and, at length, the Cicatrice was formed without any Exfoliation of the *Os Ilion*.

O B S E R V. XCVI.

Of a Tumour on the Thigh, and Collection of Pus.

THE Exfoliation of Bones being the Work of Nature, there are some Cases wherein the whole Care must be absolutely committed to her; for sometimes, by sharing it with her, the Patient is lost.

The fifth of *March*, 1726, a Servant, twenty Years of Age, was brought to *La Charité*, and put into the Fever Ward. He was attacked with a slow Fever, that had left him for six Months, which was occasioned by a slight Tumour upon the internal Part of the left Thigh. This Tumour, which was *œdematous*, and attended with very little

Pain.

Pain, was sometimes larger, and sometimes less. In the Groin, on the same Side, were several Glands, a little painful when they were touched. He took all the generous Medicines the Physicians prescribed for the Space of a Fortnight, and then went from the Hospital as much advanced in his Cure, as the Day he came in.

He staid at Home some Time in the same Condition, and finding himself worse, returned again to *La Charité*. I visited him, and perceived a Fluctuation in the Thigh, whose Size was doubled; a Fluctuation, that was much more sensible along the Vessels, than in any other Part.

The Extent of the Tumour, with its Indolence and Situation, made me dubious of the Quality of the Fluid it contained. Its Situation and Indolence might make us suspect it a false *Aneurism*; nevertheless, there was no *Ecchymosis* upon the Skin. The slow Fever, which had subsisted four Months, gave us room to suspect a Collection of *Pus*, the Consequence of a slow Suppuration, since it was attended with little Pain, and the Colour of the Skin was unchanged. It might also be a Lymphatick Tumour. The Case appearing as weighty as it was dubious, I had a Consultation with several of the Fraternity, and we agreed, with an unanimous Voice, to perforate the Tumour with a *Troisquart*, to discover the Quality of the Fluid it contained. I performed the Puncture immediately, and having withdrawn the Perforative, a white *Pus*, somewhat serous, was discharged by the *Canula*. I did not draw above a Quarter of a Pint from it, and then took out the *Canula*. The next Day I made two Incisions in the Tumour, one in the lateral and internal Part of the Thigh longitudinally, the other more anteriorly, both four Fingers Breadth; each of which answered very nearly to one of the Sides

Sides of the Tumour, leaving five Fingers Breadth of Skin between the two, which covered the Course of the Vessels. It discharged the Quantity of three or four Pints of white fluid *Pus*. I passed a Slip of Linen from one Wound to the other, of a Size proportioned to the Incisions, which might perform the Office of a Seton, and garnished it with Digestive. The Wound was dressed simply in other Respects.

Abundance of *Pus* was discharged for several Days, which proceeded, without Doubt, from the neighbouring Parts that were inundated with it.

When the large Suppuration began to diminish, I ordered Injections with *Tinct. Myrrh. & Aloes, Rad. Aristoloch. & Mel Ros.* (We know that Injections are more easily conveyed into all the Corners of a deep Wound, than Ointments; and this being detergent, is very proper to correct the vicious Juices with which the Parts are infiltrated, and to strengthen the Mouths of the small Vessels.)

By this Means the Suppuration gradually diminished, though the *Pus* was never laudable, being too thin, and of a darkish Colour. Moreover, its Quantity was too large in Proportion to the Extent of the Wound.

When the Wounds were mundified, which was in a Fortnight's Time, I withdrew the Seton; and that in the anterior Part healed, but the other did not.

I had often reflected, and endeavoured to conjecture, what might be the Cause of the Collection of *Pus*; and being persuaded that it came from a greater Distance, I imagined, that its Source was between the *Musculus Iliacus*, and the *Peritonæum*; and that it had passed along the crural Vessels, by the Assistance of the Fat that surrounds them; and a Knot of swelled Glands in the Groin fortified my Idea.

To-

Towards the End of *April*, the Patient complained of a Pain upon the great *Trochanter* of the same Thigh; an Inflammation appeared upon it, without Hardness; and the Source of the Pain seemed to be deep, since it did not increase by pressing upon that Place. I interrogated the Patient, as to what had preceded, who told me, that about a Year before, he was thrown down by a Coach, and bruised upon that Part, but never had much Pain in it.

At the same Time that the Inflammation declared itself upon the great *Trochanter*, a brown Circle appeared upon the Plaisters and Compresses that covered the Wound, and a darkish Sort of *Ichor*, of a Smell different from *Pus*, had been often discharged from the Wound already, as I said before; which made me suspect a *Caries* near the great *Trochanter*, and that this was the Fountain of that large Quantity of *Pus*, which had been collecting four Months. Every Thing squared with this Idea. First, we know that an Abscess is formed in less than four Months. Secondly, that during the four Months the Tumour was filling, the Patient felt very little Pain, which is contrary to the Character of an Abscess that is forming. Thirdly, the other Symptoms that denote the Formation of *Pus* in any Part, were wanting in this. The whole being considered, I looked upon the Distemper in the Thigh as the Foundation of the Malady, and the Wound as a necessary Drain to the *Sanies* issuing from the *Caries*.

It may, perhaps, be said, that a *Caries* does not furnish so large a Quantity of *Pus*, or so white, as that I found upon opening the Tumour. This is true; but we must consider, that the *Sanies*, by amassing and dissecting the Muscles by its Quantity, had occasioned a Dissolution of the Fat contained in
their

their Interstices, and of all that involved the crural Vessels, which Mixture had altered it ; yet, when the large Suppuration had ceased, the *Sanies* being no more blended with the *Pus*, appeared fluid and blackish, such as it was distilled from the *Caries*.

Finding the Thigh reduced to its natural Magnitude, and that a little *Sanies* dripped every Day from the Wound in the internal Part, I conceived that more was to be expected from Nature, than Art ; and being uncertain of the exact Place of the *Caries*, advised him to leave the Hospital, and breathe his Native Air, till it pleased Nature to exfoliate the Bone, upon which a compleat Cure entirely depended. Accordingly he went out the 28th of *June* 1726.

Would it have been better to have discovered the great *Trocanter*, where I suspected the *Caries* ? The following Observation will decide it.



O B S E R V. XCVII.

Of a Caries upon the great Trocanter.

ON the 8th of *January*, 1729, a Man was committed to my Care, who had an Ulcer, three Fingers Breadth long, upon the great *Trocanter* of the right Thigh. Several *Sinus*'s proceeded from this Ulcer, and, amongst others, one that descended to the middle of the posterior Part of the Thigh. The Ulcer was filled with bad Flesh, which afforded sufficient room to believe there was a *Caries* in the *Os Femoris* ; and the Patient had a slow Fever, but could not inform me when it began.

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I enquired into the Cause of his Distemper, who told me, that some Years before he had received a Blow upon that Side by a Fall, which obliged him to keep his Bed a few Days; that since he had felt a Pain in it a long Time, especially in the Night, which did not prevent him from following his Occupation; that an Abscess was formed upon that Thigh three Weeks before, which had opened of itself, and that the Wound I saw was the Consequence.

Had not a Blow preceded these Pains, I might have suspected the *Caries* to have proceeded from a venereal Cause, especially as they were nocturnal; but the Want of real venereal Symptoms, and the Blow the *Trochanter* received by the Fall, fixed my Conception, and made me look upon it as a local Disease.

I opened all the *Sinus's* formed by the *Pus* at the Circumference of the great *Trochanter*, and thus discovered the *Caries*, which appeared deep, and seemed to possess the spongy Texture of that *Apophyse*. The Patient was bled three Hours after, to prevent an Inflammation, and other Accidents: He was bled again in a few Days, because the slow Fever, which had long subsisted, was exasperated with irregular Fits and Shiverings. The Wound was dressed till the 10th of *March*, according to its different Conditions, with suitable Remedies, both to procure an Exfoliation of the Bone, and to suppress the Flesh, which was apt to rise.

The Cicatrice was begun, and had gained so far upon the Circumference of the Wound, that only a small Ulcer remained, where the Bone was bare; but by the Quantity of *Sanies* issuing from hence, a Quantity so little proportioned to the apparent Extent of the *Caries*, it was probable that the *Caries*

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pene-

penetrated deep into the Center of the Bone, and was more considerable than it appeared to be by the Superficies. Having by this Time brought the Ulcer into such Order, as not to fear the Formation of more *Sinus's* by the *Pus*, I was ready to abandon the Remainder of the Cure to Nature, the Fever having ceased, and the Patient by my Advice was to return into his own Country to recruit himself; but I was seized with an Illness the 12th of *March*, and kept my Bed three Weeks.

During my Illness, a Surgeon imagining that he could obtain an Exfoliation of the *Caries*, divided the new Cicatrices, and discovered the whole *Trochanter*, from whence he drew some small Pieces of Bone.

The Incisions made upon the tendinous and aponeurotick Parts, which cover the *Great Trochanter*, and are fastened to it, occasioned an *Erysipelas*, Inflammation, and Fever. Two or three Bleedings were used in vain, to calm the Symptoms, and stop their Progress; a Reflux of purulent Matter happened, which was declared by several Shiverings, and the Patient died the seventh Day.

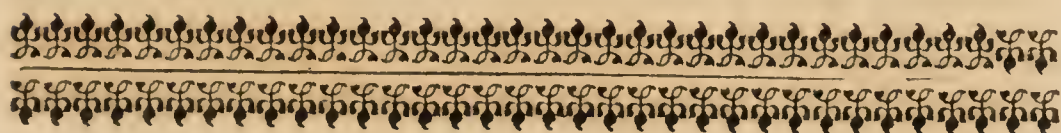
I sent Orders to have him opened, and to bring me the *Femur*. I saw it, and it may be still seen, having preserved that Piece in which the *Caries* had scoop'd a Cavity in the *Apophyse* big enough to lodge a Garden-Bean. This Cavity served as a Reservoir to the Quantity of *Pus*, which issued from the Circumference of the spongy Texture of the *Apophyse*, and, perhaps, from that of the superior Part of the *Femur*.

R E M A R K S.

Could it be expected to see the whole superior Part of the *Femur* fall off by Exfoliation? This
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may happen by a great Effort of Nature, but it must require a very considerable Time.

These are the Cases in which Nature should do more than we can, and wherein we ought only to think of assisting her, and not to make her cruel. These are the Cases wherein we ought only to think of giving a free Discharge to the *Pus* distilling from the *Caries*. We are too happy, sometimes, in rendering a Disease supportable, which might be ranked amongst those that are incurable.



O B S E R V. XCVIII.

Of a Tumour on the Thigh by Congestion.

TUMOURS, by Congestion, come to Suppuration with Difficulty, and when they are at length arrived to it, there always remains an Hardness in the Circumference, because the Fermentation of the stagnated Humour is too indolent to dissolve it. When this Hardness is deep in the Interstices of the Muscles, its Dissolution is more or less susceptible of Accidents, according to the Character of the Distemper; and tho' it takes the Course of Suppuration, we cannot form an exact Judgment whilst any Part of the Hardness remains undissolved.

The 19th of *December*, 1727, a Man was brought to the Hospital, who had an hard indolent Tumour upon the middle and internal Part of the Thigh, upon which all Kinds of emollient Cataplasms had been applied: At length the Tumour,

with much Difficulty, came to Suppuration; and when I examined it, was ready to open of its own Accord, although the greatest Part of the Hardness was undissolved. I opened it on the 20th of the same Month, and discharged a large Quantity of *Pus*, which proceeded from the *Interstice* of the *Vastus Internus & Cruralis*.

When I had dressed the Wound, I ordered emollient Cataplasms to dissolve the Hardness that remained.

During the first ten Days, the Wound went on tolerably well; but on the tenth, though it suppurated abundantly, the Patient was seized with a Fever, his Pulse became low, quick, and confined, such as it is at the Formation of *Pus* in any Part. He complained of a Pain in his Breast besides, which continued above a Week. At this Time the Wound changed to a bad Colour, and seemed full of Eschars, through which a considerable Quantity of bad *Pus* was disgorged. I likewise discovered a *Sinus*, which came from the Insertion of the *Triceps* to the middle Part of the *Femur*.

It was eight or ten Days before these Eschars separated; during which Time, the Suppurations were very large, and the Patient had a violent Fever, for which he was several Times bled. When they were separated, I observed that all the Hardness was dissolved. At length the Fever abated, and the Wound taking a favourable Turn, only by plain, but methodical Dressings, he was cured in five Weeks.

R E M A R K S.

It seems, that one Part of the Tumour being dissolved into *Pus*, with very little Pain, that the Dissolution of the Hardness remaining after the Aperture,

Aperture, ought not to create any Accidents; and yet, in all Appearance, those that happened were only the Consequence of it.

These are my Notions upon this Case, and what appears to me most probable.

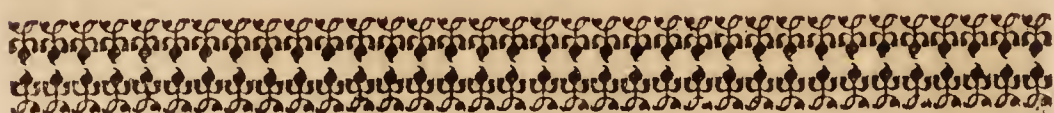
The Distemper, in the beginning, was an Infiltration of *Lympha* in all the Membranes of the Muscles where the Tumour was formed; this Infiltration increased, and, by Degrees, extended to the Fat between the Muscles and the *Pannicula Adiposa*; because the membranous Fibres that compose it, take their Rise from the Membranes of the Muscles underneath.

The Fermentation of the stagnated Humour was slow, being in some Measure suspended, or, at least, very little accelerated by the emollient Cataplasms used; and this, joined to the Relaxation occasioned by the emollient Cataplasms in the infiltrated Vessels, rendered the Tumour almost indolent; nevertheless, the Fermentation, tho' slow, produced a Suppuration at last; but the Slowness was the Cause why the Accidents were so gentle.

It is not the same with the Hardness that subsisted after the Opening; the Application of Digestives that are hot, quickened the Fermentation of the rest of the Humour in the Vessels, and consequently occasioned a more sudden Suppuration: Therefore I look upon the Hardness as a Tumour susceptible of the same Accidents, that accompany extitural Tumours. The Fever, inseparable from the Fermentation of *Pus*, subsisted for several Days, and though there was neither Tension, nor Pulsation, if the inflammatory Inflation, generally attending the Fermentation of *Pus*, was not very sensible, the Reason was, because the *Pus* was not inclosed, as when the Skin is intire, losing itself in the Wound; in Proportion as it breaks the Tex-

ture of the Vessels. The Remainder of these Vessels formed the Eschars I have mentioned.

Therefore the Symptoms which supervened, must be looked upon as the Consequence of the Dissolution of the Hardness remaining after the Opening.



O B S E R V. XCIX.

Of a Fracture of the Thigh, with a Concussion of the whole Body.

IN several of the former Observations we have seen the Necessity of repeated Bleedings in a short Time, in large Contusions and Commotions of the whole Body. That Rule is not without Exceptions, as you will see by the following Observation.

In the Month of *June*, 1725, a Man was brought to the Hospital, who fell from four Stories high. He was without Sense, and cold all over his Body, and had two small Wounds upon his Chin; to one whereof I gave a Stitch with a Needle, making the dry Stitch to the other, supported by a Bandage. He had the left Thigh broke besides, three Fingers Breadth below the great *Trocanter*.

When I had reduced the Fracture, and dressed him with a proper Bandage, according to Art, I ordered him to be bled twice in a short Time, and prescribed him vulnerary and cordial Potions, to stimulate the Motion of the Fluids, which seemed much slackened by the Concussion occasioned by the Fall; for, after the second Bleeding, he was seized with an universal Cold, which subsisted three
Days,

Days, with a concentrated Pulse. I would have bled him again, but the Blood would not flow. At the Expiration of this Time, the Skin began to grow warm, the Pulse was raised, and a *Delirium*, with a considerable Oppression, supervened. Then the Patient was bled several Times; but it was only on the fourth and fifth Days that the Symptoms were assuaged. The Thigh was disturbed by the Patient's Agitations during the *Delirium*; but was reduced again, and grew daily better, till he perfectly recovered.

Though few People escape the ill Consequences of these universal Commotions, nevertheless, the Assistance of Art should not be neglected; and, sometimes, triumphant Nature seconds our Care and Attention.



O B S E R V. C.

*Of a Wen upon the Knee. Communicated by Mr. Bail-
leron, Surgeon at Beziers.*

A Nun of *La Charité* at *Beziers*, had been troubled with a Wen upon her Knee for many Years, which was so incommodious, as to prevent her from making the Motions of Flexion and Extension, and consequently to kneel. She had used all the Remedies prescribed her without Success.

She often had an *Erysipelatous* Humour upon it, which gave way to Repose, and such generous Remedies as we advised; having proposed the Extir-

pation of the Tumour, to which she would not consent.

Towards the latter End of *October*, the *Erisipelatous* Humour being very considerable, and the Wen grown to a prodigious Size, it incommoded her so much that she resolved upon the Extirpation. My Father and I endeavoured to moderate the Inflammation by Means of Phlebotomy, and emollient Cataplasms; and when it had yielded to these Remedies, I fixed a Day with the Patient for the Operation, and performed it the 27th of *November*, 1729, in Presence of Mr. *Charles*, Physician of the Convent, and my Father.

The Wen was twice as big as my Fist; the Skin red, and wasted, so that it seemed ready to break soon; besides, I felt a Fluctuation underneath. I proposed to preserve the Skin, thinking, when I had divided it, to loosen the *Cystis*, and take it entirely off, without opening; and, to this End, I pinched the Skin jointly with my Father, and divided it with my Bistoury, to discover the *Cystis*; but the Skin being wasted by the long use of Plaisters and Cataplasms, I unfortunately opened it, from whence issued a thick, white, grumulous *Lympha*, of the Consistence of Honey. Then I introduced my Finger into the Cavity, and made an Incision in the Skin, into which I thrust my Finger, endeavouring to dissect the *Cystis*; and having loosened it on that Side, I lengthened my Incision, and finished the Dissection on the other. Nevertheless, I separated the *Cystis* from the *Condyles* and the *Apophyse* at the superior Part of the *Tibia*, and the Circumference of the *Rotula*, where it was adherent. I pinched up the rest with my Fingers, and carefully detached as much as I possibly could, which furnished very little Blood. As I perceived that I could take off no more of the

Cystis,

Cystis, I presumed that I might gradually consume the Remainder by Means of some Escharotick, and dressed it with dry Lint, garnishing the Bottom with Dossils, supported by Compresses, and a suitable Bandage. I bled the Patient two Hours after, and ordered the Dressings to be moistened with *Ol. Ros.* that they might be removed with greater Facility. I left this Dressing on forty-eight Hours, and ordered it to be moistened again with *Ol. Ros.* three Hours before I took it off, and removed it without Pain to the Patient. Now I discovered that a great Part of the *Cystis* remained, which was at least as thick as a six Livre Piece, therefore I dressed it with Digestive.

The Suppuration being established, I endeavoured to use the mercurial Water to consume the Remainder of the *Cystis*; but the Patient could not endure the Torture occasioned by that Escharotick, which lasted the whole Night, and induced a Fever, with an Inflammation surrounding the Wound. I bled her thrice that Day, and gave her half an Ounce of *Diacodium* in the Evening to compose her. The Symptoms being quieted, I sought for another Escharotick more gentle, and that would sooner consume the *Cystis*. My Father taught me to make one with Sulphur, Resin, and Honey mixed together. I spread some of it upon a Pledget, six Days after the Inflammation had ceased; and applying it in the Morning, I left it on till the Evening's Dressing, which procured me an Eschar as large as the Palm of my Hand. I applied the same Medicine the next Day, which finished the Consumption of that Portion of the *Cystis* that remained. The Eschar was almost a Fortnight before it separated, though I took off a Part of it every Day with my Bistoury. At length, the whole being fallen off, the Flesh appeared
found

found at the Bottom, without the least Remainder of the *Cystis*. Then I dressed it as a simple Wound, which soon cicatrised, and the Patient was radically cured.



O B S E R V. CI.

Of an Amputation.

WHEN we are obliged to perform the Amputation of a Limb, we must endeavour to preserve enough of the Muscles and Skin, and to saw the Bone so near, that the Flesh which is cut may, if possible, cover it again, and speedily re-unite.

The sixth of *June*, 1728, a Man was received into *La Charité*, who had all the Bones of the Fingers, the *Carpus*, *Metacarpus*, and of the Fore-Arm, some exostosed, and others carious; and the Flesh upon these Bones ulcerated in several Places, and in others dried. Let the Cause proceed from what it would, there was no hesitating to perform the Operation; therefore I prepared the Patient immediately with cordial and generous Medicines, and performed it on the 14th of *June*.

Every Surgeon knows, that in the Amputation of a Limb, especially those where the Muscles are strong, the Skin contracts considerably, and that sometimes, notwithstanding our Care of drawing the superior Part of the Flesh upwards, before the circular Incision is made, the Bone will afterward project three Fingers Breadth beyond the Flesh:
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We know besides, that by the Dissolution of the Parts during the Suppuration, it contracts so much, that the Bone is sometimes too long: To prevent this Inconveniency, I performed the Operation at twice.

The Ligature being made according to Custom, with Mr. *Petit's Tourniquet* to stop the Blood, and the Limb being supported by two Assistants, I made a circular Incision through the Skin and the Muscles with the crooked Knife: Then ordering them to be drawn upwards by the Assistant who embraced the superior Part of the Arm, I began the circular Turn again with the Knife even with the Wound, cutting a second time to the Bone, which I sawed off even with the Flesh. The Ligature of the Artery being performed, and the *Tourniquet* removed, I ordered the Flesh and Skin to be approached as near as possible, and to maintain them in this Situation. When I had placed a sufficient Quantity of Lint upon the Wound, I put two Rolls of Plaister, which crossing the Wound, prevented the Skin from retiring.

The fourth Day I raised the first Dressing, and found the Suppuration compleat; and was surprized, at the same Time, not to perceive the Bone; the Flesh was re-united to itself, and to that of the opposite Lip, so that we had no Exfoliation.

It is the Exfoliation that generally retards the Cure; but the Bone being covered before the first Dressing was removed, the Wound was entirely healed in twenty-five Days.



O B S E R V. CII.

Of a Caries in the Articulation of the Joint, and Amputation.

IN the Month of *March*, 1729, a Man was received into the Hospital, who had been afflicted with a scrophulous Tumour upon the right Knee, for the Space of two or three Years. This Tumour was very painful, and he had applied all manner of Remedies to it, without receiving the least Benefit. The Pain was principally in the Joint, and his Leg remained bent, without a Possibility of being extended, whether from an Infiltration of the *Cartilago Semilunaris*, which is between the *Femur* and the *Tibia*, that would not suffer the Articulation to play, or from the Pain that stopped its Motion. At length the Tumour upon the Knee diminished, a considerable Dissolution of it happened, the Patient was seized with a Fever, and in this Condition he came to the Hospital.

Having examined it, I felt a Fluctuation almost the whole Extent of the Knee, especially above the Articulation, and discovered an *Exostosis* upon the *Femur*, which extended three or four Fingers Breadth above the *Condyles*; therefore I could see no other Method to be taken, but the Amputation of the Limb.

I prepared the Patient by two Bleedings, and as many Purges, and then performed it an Inch above the *Exostosis* upon the *Femur*.

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To prevent the Muscles of the Thigh, which are very strong, from leaving the Bone naked by their Contraction, I performed the Operation as described in the preceding Observation.

Till this Time I looked upon the Distemper as local, the Patient having told me, that it began by a Blow upon the Knee ; but what happened a few Days after the Operation convinced me to the contrary.

The Wound never came to a good Colour, let me take what Care I could. Towards the fifteenth Day he was seized with a slow Fever, and the Stump withered as the Patient emaciated, and at the End of six Weeks the Bone began to swell in the Form of an osseous Mushroom, which could be easily distinguished thro' the Flesh that cover'd it.

The Physician prescribed him proper internal Medicines in vain ; nothing could correct the internal ill Disposition of the Juices, and he died three Months after the Operation.

As soon as I had performed the Amputation, I examined into the Articulation, and found all the lower Part of the *Femur* exostosed. The *Cartilago Semilunaris* was entirely destroyed, as tho' there had been none, as well as that covering the *Epiphysis* of the *Femur* ; therefore that *Epiphysis* was almost bare, and pierced like a Sieve with an infinite Number of Holes.

After the Patient's Death, I took off the Bone of the *Femur*, which I still preserve. You may see on one Side, from the Place that was sawed, to four Fingers Breadth above it, an exostosed Ridge a Finger's Breadth broad, which seems to be a kind of Incrustation made by the *Succus Nutritius*, which had distilled across the Fibres of the Bone, and had inspissated under the *Periosteum*.

The *Succus Nutritius* distilling in the same Manner from the whole Extremity of the Bone, formed an *Exostosis* in the whole Circumference of the same Nature, and exactly resembling the Figure of a Mushroom, the Substance of the Bone forming the Stalk.



O B S E R V. CIII.

Of a scrophulous Tumour upon the Knee, with the Amputation.

IN the Month of *December*, 1729, a Boy eleven Years old was brought to *La Charité*, who had a scrophulous Sort of Swelling upon the lower Part of the Thigh, especially upon the Knee. The two *Condyles* of the *Femur* exceeded their natural Size, and there was a Disposition to an *Anchylosis* in the Articulation of that Bone with the *Tibia*. Moreover, there was a small *Sinus* that discharged a foetid *Sanies*, on the Inside the Knee, near the *Condyle*.

I introduced my Probe three Fingers Breadth into it, which passed under the Ham, and felt the Bone carious, without being able to conjecture of what Nature it was. I instantly judged that it could not be cured without Amputation of the Thigh; but as it was the Depth of Winter, I thought we might, and ought, to defer the Operation till the Spring, and employ the Interval of that Time to destroy, if possible, the antecedent Cause by internal Remedies. Mr. *Dubois*, Physician of the

the Hospital, ordered him to be bled, and prescribed him Attenuants, with sudorifick Decoctions.

In a Fortnight's Time a small exitural Tumour appeared in the Ham, towards the Insertion of the *Popliteus*, and proper Topicks were applied to bring it to Suppuration. I opened it the eighth Day, and dressed it with Digestives, covering the whole Knee with *Emp. Diach.* and *Emp. de Vigo* mixed together. The small Wound contracted, and remained fistulous, the exact Consequence of a *Caries* in the Bone. He took the attenuating and sudorifick Medicines again, which he had declined taking before, and continued them to the Spring. Notwithstanding this, the *Exostosis* and *Anchylosis* seemed to augment. At length, in the Month of *February*, finding the excessive Cold passed, I resolved to amputate the *Femur*. The Patient was bled and purged, and then I performed the Operation, as described in the former Observation. I did not remove the Dressings till the fourth Day, which were afterwards applied as Necessity required.

The Pain sensibly decreased till the eighteenth Day, when I perceived that the Flesh rose on the Side of the Bone. I felt it with my Finger, and found that it seemed to rise, only because the Bone was swelled immediately underneath; at the same Time the rest of the Flesh appeared soft and shining, and a gentle Fever seized the Patient. These Symptoms made me fear he would share the same Fate with the former, mentioned in the last Observation. To prevent it, if possible, I prescribed him a purgative and sudorifick Ptisan, the Composition whereof I shall give you hereafter.

The Patient took a Glass of it Morning and Evening, for five Days, which promoted a plentiful Perspiration, and purged him ten or a dozen Times

Times in twenty-four Hours. The sixth Day I perceived that the Wound had changed its Figure, and was restored to its primitive Condition; and, as the Evacuations by Perspiration and downwards had been very copious, I suspended the Use of the Decoction. Then the Sweats ceased, and the Stools diminished. Four Days after I renewed the Decoction, giving only one Glass *per* Day in the Morning. Soon after he took only one every other Day; and thus I insensibly diminished the Quantity, and the Child was perfectly cured the 16th of *August*.

I ordered him to use the Decoction for six Months, and the Distemper never returned upon any other Part. The Ligature of the Vessels was above six Weeks before it fell off, and a small Abscess was formed at the Side of it, which was opened, and dressed according to Art, but did not retard the Cure.



O B S E R V. CIV.

Of a Spina Ventosa.

THE 15th of *January*, 1729, a Man thirty Years of Age was conducted to the Hospital, whose Distemper had begun the preceding Summer by a continued Fever. The Exasperations that attended it being ceased, it had degenerated into a slow Fever, and then he was attacked with profound and dull Pains in his right Leg; Pains that did not increase when touched, or even when
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the Place was touched of which he complained. A slight Tumour had appeared in the middle and anterior Part of that Leg for about four Years before. Besides a small Swelling which I found in the Skin, I felt another in the Bone with my Finger. Before I put any Remedy in Practice, I interrogated the Patient as to his Manner of Life, and the Distempers he might have had, to discover the Cause of this in Question. He assured me several Times, that he had nothing to reproach himself of with regard to Women, having never been concerned with any; and he had nothing upon his Body that could make me judge his Distemper to be scorbutick or scrophulous, unless it was a darkish livid Complexion.

Mr. *Dubois*, the Physician who attended the Hospital at this Time, ordered him to be twice bled, and put him into a Course of sudorifick Ptisans, and *Æthiops Mineralis*. The Patient continued the Use of these Medicines till *February*, during which Time I only applied emollient and discutient Cataplasms to his Leg, waiting for the Distemper to declare itself more fully. At length, on the 1st of *February*, I felt a Fluctuation in the Tumour, without giving the Patient any Pain.

I opened it, and found two Spoonfuls of serous Pus, and dressed it at first with animated Digestive, and some Time after with the consumptive, to destroy the fungous Flesh that rose from the Bottom. The Wound was always pale, and did not advance. The Patient was attacked with some Fits of an irregular Fever, which returned diurnally, but never at the same Hour, for which he took *Febrifuges* for the Space of six Days.

On the 17th of this Month, another Suppuration happened, towards the *Malleolus Internus*, which was of the same Nature as the former, being formed

ed without Pain, much Swelling, or Discolouration in the Skin. I opened it, and found the *Pus* it discharged ferous like the former. This Diffolution of the Parts gave me room to suspect a Distemper in the Bone, tho' it was not bare. The Flesh at the Bottom of the Wound was very sensible.

A third Fluctuation which happened towards the middle and external Part of the Leg, between the *Tibia* and the *Fibula*, having obliged me to make a third Incision, I found that the *Tibia* was discovered and carious, with a slight *Exostosis* upon it. Then I began to doubt whether the Bone was not very much distempered, and so much, as not to hope for an Exfoliation; and therefore resolved upon the Amputation, since the upper Part of the Leg appeared sound. The Patient consented, and it was performed the 25th of *February*. He was dressed according to the Rules of Art, bled towards the Evening, and prescribed a vulnerary Ptisan with Nitre. I ordered him to be bled again in the Night, his Pulse being much elevated, and it was repeated again a third Time. I took off the first Dressing on the third Day, when the Suppuration began to be established, and dressed it with Digestive, till the Separation of the Ligature upon the Vessels, which happened on the eleventh. The Suppuration had increased from Day to Day, and was laudable and abundant. At this Time I fell sick, and therefore cannot continue the Account of his Treatment. I was since informed, that the Wound changed its Appearance in a few Days, and became very painful; that the Suppuration was suppressed; that the Patient was seized with a Fever; that the Flesh of the Stump was withdrawn, and instead of being even with the Bone, as it was before, had left it naked, and projecting

two or three Fingers Breadth beyond the Flesh; that now the Patient began to complain of a Pain in his right Shoulder and the whole Arm, inso-much that he could not move it; and in short, that he died the twenty-fifth Day after the Operation.

As soon as I had amputated the Leg, I separated the Flesh from the Bone to examine it, and did not in the least doubt but it was sufficiently distempered; yet I was tempted to believe, that the Distemper began in the Canal of the Bone. In taking off the Flesh, I observed that the *Periosteum* separated easily from the Middle of the Bone to the inferior Part, whereas it was very adherent, from the middle to the superior Part, not being to be separated without Difficulty.

The Bone being quite bare, I discovered two *Caries*, one on the middle Part of the internal Surface, where the *Exostosis* is very apparent; the other upon the lower Part of the external Surface near the *Fibula*; this second *Caries* is very shallow. All the rest of the Circumference of the Bone, from the middle to the inferior Part, was covered with a greyish Incrustation, of the Thickness of a Farthing or more, which is hard and dry at present, (for I preserve the Bone) but it was of the Consistence of Wax at that Time, and in some Places I could raise it with my Nail, finding the Bone underneath white, and seemingly natural. As this Incrustation was between the Bone and the *Periosteum*, it is probable that what had formed it had distilled from the Bone itself.

Tho' the *Periosteum* was adherent to the Bone, from the middle to the superior Part, yet the Bone was unsound; for we might then, and can now see throughout the whole Circumference, especially along the Ridge, and of each Side of it, a Number

of red Spots of different Sizes, which probably might have been soon covered with an Incrustation like that surrounding the inferior Part.

I sawed the Bone longitudinally; and tho' at first Sight the internal Part seemed very sound, nevertheless, from the middle of the Bone, where the *Exostosis* was, to the superior Part, the *Medulla* was somewhat more red than the rest. The Surface of the Bone, where I had sawed it longitudinally was, at that Time, also more red in the superior Part than the inferior. I have preserved the Bone intire, and found that in two Months the superior Half of the Bone, and *Medulla*, preserved most of their Vermillion Colour, whilst the *Medulla* in the inferior Half was almost black.

As soon as I was informed of the Patient's Death, I ordered him to be opened, and especially to examine the Shoulder of which he complained. They found all the Muscles of the Arm and of the Shoulder putrefying with a purulent *Lympha* in their Interstices. They brought me the *Humerus* and the *Scapula*. In the *Humerus* there is a slight *Exostosis* in the anterior Part, near the Insertion of the Tendon of the *Deltoides*, and a *Caries* at the Junction of that Bone with the *Epiphyse* that forms its Head. There is a slight *Caries* in the *Scapula*, at the Basis of the *Acromion*.

The Day I amputated the Leg, upon a View of the *Tibia*, I repented that I had not performed the Operation above the Knee, and should have done it now, if the *Exostosis* of the *Humerus*, and *Caries* of the *Scapula*, was not a Proof sufficient, that the Distemper in the Leg was not merely local.

Tho' the *Spina Ventosa* is a kind of *Exostosis*, it is of a particular Kind; of which very few Authors have treated.

I leave

I leave it to those who read this Observation, to decide what was the Cause; for my own Part, I look upon it rather as scorbutick, than of any other Nature, since the Patient's Complexion, as I observed before, was livid; and that those who have had the Care of many scorbutick Patients, have remarked, that, in the generality of those Patients, when they are dead, the large Bones are easily stripped of the *Periosteum*, and of the Muscles that cover them. It is very rare that we have the Opportunity of seeing the Beginning of that Distemper, which Authors call a *Spina Ventosa*; for which Reason, I thought it my Duty to expatiate upon the Symptoms attending it in the Beginning, and the State of the Bone when it begins to exostose. What most surprized me before I made the Amputation, was the manner by which the Suppuration was formed; or rather, a Dissolution of the soft Parts under the Skin, without Pain, without Tumour, or Discolouration of the Skin. This, added to the slender *Exostosis* I felt upon the Edge of the *Tibia*, was what induced me to believe that the Bone was distempered, and determined me to perform the Amputation.

The Condition of the superior Part of the *Tibia*, which was threaten'd with the same Disorder as the inferior, may serve for a Rule in parallel Cases, never to perform the Amputation upon a Bone that is diseased; I think, besides, for the Honour of Surgery, that it is better omitted when you are assured that the Blood is vitiated, unless that Vice is first destroyed by suitable Medicines.



O B S E R V. CV.

Of a Wound upon the Leg.

ON the 24th of *April*, 1728, a Man was brought to *La Charité*, who had received a Cut with a Knife, four Days before, upon the middle and posterior Part of the Leg, in the carnous Part of the *Musculi Gemini*; the Surgeon who dressed him first, had dilated the Wound above and below, so that it was about six Inches long, and five broad.

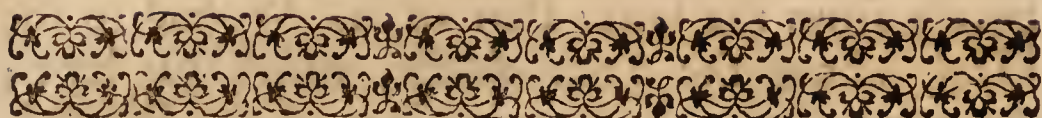
I thought it improper to enlarge the Wound, which was sufficiently done before, and ordered it to be dressed only with animated Digestive, moistening the Compresses with Spirit of Wine camphorated, the Wound having seemingly a Tendency to mortify; and the same Digestive was continued for several Days. A Fever, among other Symptoms, appearing, I ordered the Patient, who had been bled but once before, to be bled again immediately. This Fever subsisted till the seventh Day, notwithstanding the Bleedings, and other Remedies; and the Wound had an ill Aspect, which is common to such as are attended with a Fever. Moreover, an *erysipelatous* Swelling supervened, extending almost to the Heel; the Suppuration was very copious, and of an insupportable Odour. On the ninth Day he was seized with Shiverings, and two considerable *Sinus's* appeared, formed by the Dissolution of the membranous Parts, which is a common Consequence in large *Erysipelas's*. The first and principal *Sinus* was in the inferior

inferior and lateral Part of the Leg ; it passed obliquely from the lower Part of the Wound to the Heel, above the *Tendo Achillis*, which was bare ; the other was at the superior Part of the Wound. These two *Sinus*'s discharged a *Pus* of a cadaverous Scent, mixed with several Films of putrefied Membranes. I opened the *Sinus* in the superior Part ; and in the inferior, to avoid the Pain, and preserve the Skin, I made a contra-incision, capable of affording a free Passage to the Matter. The Patient was in the same Condition notwithstanding, the Fever raging more and more, in Opposition to all the Assistance of Medicines. Finding the Suppuration excessive, and of an ill Kind, I entirely abandoned digestive Medicines, and used Wine and Honey ; the next Day the Wound appeared in a better Condition, (it is true, the Fever abated in the Night) and the second Day the Suppuration was laudable. By Degrees I cut off all the putrefied Membranes that appeared in the Wound, so that the *Tendo Achillis* remained bare under the Skin.

At three Weeks end the Wound took a happy Turn, and the Flesh appeared of a good Colour. I placed a small expulsive Compress between the two Wounds, which not permitting the *Pus* to lodge between the Teguments and the *Tendo Achillis*, the Skin united, and the Patient soon recovered.

R E M A R K.

The Use of Ointments and Digestives must not be continued too long, especially in those Parts abounding with Tendons and membranous *Aponeuroses* ; by such Practice, the Wound soon fills with soft shining Flesh, incapable of forming a good Cicatrice.



O B S E R V. CVI.

Of a Phlegmonick Erysipelas.

IT often happens, that what appears a *Phlegmon* to us, has been an *Erysipelas* in the membranous or aponeurotick Parts of the Limb at first. If we are fortunate enough to assuage the Inflammation that succeeds the *Erysipelas*, the Limb, however, is not entirely freed from the Danger of Suppurations ; such Suppurations as are the Consequence of a Putrefaction of the Membranes, which were at first attacked by the *Erysipelas* ; and these Suppurations are generally formed without Pain.

A Person, when he was very young, as he told me, had a Sort of fleshy Substance, in the Form of a circular Ligament, four or five Fingers broad, upon the inferior Part of his right Leg, directly above the Ankle.

The 12th of *July*, a *Phlegmonick Erysipelas* appeared upon that Leg, which was attended with a Fever. The Patient was bled twice at Home ; but those two Bleedings, performed in three Days, were not sufficient ; and the Distemper increasing, he was brought to *La Charité*.

I found his Leg of a surprizing Magnitude, which obliged me to bleed him again twice the same Day. The next Day he was bled a fifth Time, and the Fever ceased. I ordered emollient Cataplasms to be applied to his Leg, which were renewed Morning and Evening ; and by the Use of these Cataplasms, the Inflammation seemed to
be

be entirely dissipated in seven or eight Days, and then he was purged.

The Termination of the *Erysipelas* was not only by Discussion, or Resolution, but also by Suppuration. A Number of small Knobs, filled with *Pus*, opened naturally, by the Assistance of the Cataplasms, and healed of themselves. A Fortnight after, a slight Fluctuation appeared at the inferior and internal lateral Part of the Leg, in the fleshy Substance I mentioned before, which I opened. The twenty-fifth I felt another more considerable, at the anterior and interior Part of the same Leg, which I was likewise obliged to open. The twenty-eighth I felt another Fluctuation above the second Aperture, upon the Edge of the *Tibia*, and having opened it, was obliged to take off the Angles. All these Wounds were afterwards dressed according to Art, as Occasion required, and were healed one after the other. Ten Days after this last Incision, I was under a Necessity of making a fourth, still more considerable, upon the inferior and external lateral Part of the Leg; and what is most particular, all these Suppurations were formed without the least Pain. Thus the greatest Part of the *Aponeurosis*, called the *Membrana communis Musculorum* of the Leg, came to Suppuration in the inferior Part.

One Thing comforted the Patient in the Pain he had endured, which was, that all these Incisions so diminished the fleshy Substance, mentioned before, that they made this Leg almost of the Size of the other. He went from the Hospital the 14th of *September* perfectly recovered.



OBSERV. CVII.

*Of a Wound upon the Leg, caused by a Cannon-Shot ;
communicated by Mr. Leaulté.*

THE Effects of Cannon are so surprizing, that they are compared to those of Thunder.

I shall not undertake to give the Physical Reasons of their different Effects: But with regard to Wounds made by Cannon-Shot, it is very certain, that the Dimension of the Balls, the Force of the Powder, its Quantity, the Distance from whence the Ball proceeds, may produce infinite Differences in Wounds.

I shall instance only one Observation, upon a Wound made by a Cannon-Ball, which appeared very singular to me, with regard to other Wounds from the same Cause, received at the same Time, and at the same Distance, whereby the external Parts were concerned in the Manner I shall relate.

At the Battle of *Malplaquet*, the Troops of the King's Household were exposed several Hours to the Fury of the Cannon. Amongst the vast Number of those who were wounded, I saw four of the King's Guard, belonging to the Company whereof I am Surgeon, who had each of them a Wound nearly alike, though in different Parts.

In one, the Ball had wounded the Shoulder, carrying away with the Teguments a Part of the *Deltoides*, half an Inch thick ; the Wound was about an Inch broad, and four Fingers Breadth long.

Another

Another received one about the same Diameter and Depth, at the lower Part of the Thigh, and transversely two Fingers Breadth from the *Rotula*.

The third had a Wound of the same Dimension, in the middle and anterior Part of the Leg, in which not only the Teguments, but a Part of the Ridge of the *Tibia* was taken away, and the Bone not totally broke.

The Wound of the fourth was in the middle and external Part of the Leg; and the Ball had carried away, both from the Teguments and the *Gemini*, near the same Quantity as I observed from the others.

I saw these four wounded Men only the Day after the Battle, who were assembled together at *Quesnoy*, having been dressed in the Field of Battle, with a little Lint dipped in Brandy.

When I dressed the three first, I had a Regard to the Swelling that generally happens in such Wounds, and made the Incisions and Scarifications necessary, exhibiting proper Remedies, both internal and external, with Bleedings, in such a Quantity as I judged convenient.

As to the fourth, I found the wounded Leg almost in a natural State, without swelling in any Part, excepting in a small Portion of the Circumference, which I found hard and elevated. I opened it above and below, deep enough to divide the Membranes which cover the Muscles, and might bridle that Part of the Wound, and thus finished the Dressing.

When I took off the first Dressing, I found the whole Division I had made filled with Flesh, which grew a Finger's Breadth above the Skin, without any Alteration in the Limb. I imagined that I had not sufficiently unbridled it, nor penetrated deep enough into the Body of the Muscles: Therefore

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I extended my Incision above and below ; I even cut in several Places to the right and left, and took off all that was superfluous.

The next Day, I found the same Increase and Swelling ; and took off the whole, and discovered another Strangulation, which I divided.

The fourth Day, several Surgeons being dispatched by the Court, to assist in taking care of the vast Number of those wounded in the Battle, being arrived at *Quesnoy*, to be distributed by the Intendant to different Places, where the Wounded had been sent, these Gentlemen did me the Honour to visit my Hospital ; I desired they would see my Patients, and especially the last. Messieurs *Dalibour*, *le Dran*, and *le Noir*, who had already seen him, met there with Monsieur *Turssan*, *L'Ainé*, and *de la Fosse*. They were as much surprized as myself to see those Excrescences, finding the Leg in a good Disposition otherwise, without Swelling or *Œdema*. They were of Opinion, that I should still cut off the superfluous Flesh, and see whether nothing confined the Muscle, which I did. We might have applied Causticks to consume these Excrescences : But this Method was judged too weak, and therefore we did not use it. I finished the Dressing as usual, by keeping the Wound dilated with Dossils, without confining it too much.

In Conversation, I took Notice to these Gentlemen, of the Apprehensions I was under, as to the Success of this Wound. I could foresee what Accident would happen in the End, difficult to surmount, and was afraid, that by endeavouring to preserve the Leg, we should be obliged to amputate the Thigh, or suffer the Patient to perish. Their Opinions were so divided upon my Reflections, that they came to no Resolution.

The next Day every Thing was in the same Condition, and the Flesh more lofty. I resolved to withstand it three Days longer, by cutting and taking away these Excrescences, of which I had already cut off, at six or seven different Times, four times the Bigness of my Fift.

At length I came to a Resolution of calling the rest of the Gentlemen together, who were at *Quessnoy*, and desired them to visit my Patient again, who remained in the same Condition, excepting that the Leg under the Wound was a little swelled and *œdematous*. I proposed the Amputation again, and they all agreed that no better Method could be taken. I performed it in their Presence, having my Dressings ready before ; and in the usual Place, when we are at Liberty to chuse it, which was happily above the Swelling.

The Operation being performed, we examined the State of the amputated Leg, which was very found, excepting the Place of the Shot, where all the Parts were gorged with Blood, especially the Body of the Muscle. The *Peroné* was broke obliquely against the Wound.

All Things passed successfully with regard to the Stump and the Wound ; but a Number of Symptoms happened that I was obliged to conquer.

The second Day after the Operation, the Patient was attacked in the Evening with a violent Discharge of Bile, both upwards and downwards ; and the Vomitings being very frequent, I determined, notwithstanding the Apprehensions I might have, upon Account of the Ligature of the Vessels, of the Shocks of a Vomit, to give him a Dose of *Tartar Emetick*. I gave him a Cordial afterwards, and all was calmed. The Suppuration was established, and the Wound went on happily ; when, on the seventh Day, a very violent Fever supervened, preceded

ceded by a terrible Shivering, and accompanied with a severe Pain in the Head. I bled my Patient, notwithstanding the Number of Bleedings before; and this Paroxysm terminated in ten or twelve Hours by a copious Sweat.

The Fit returning again the next Day, about the same Hour, and with a Shivering, I immediately gave him the Bark after the Fit was over, which I ordered him to continue. It produced its Effect; for the third Fit, which came on later, was considerably diminished, and he had no Return. Notwithstanding all these Symptoms, the Wound was always in Order.

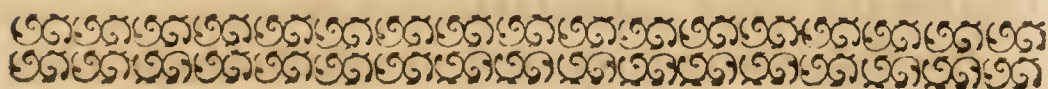
About the fifteenth Day from the Operation, the Patient was attacked with a *Diarrhœa*, accompanied with a violent Cholick. Clysters, and other Remedies administered, affording him no Relief, I prescribed the *Ipecacuana*, which succeeded very well. I seconded it with an astringent and cordial *Opiate*, which was attended with such Success, that, at length, all was appeased; and, from that Time, Things went on to a Miracle. We had no sensible Exfoliation, and the Patient was in a Condition to be sent to the Invalids six Weeks after the Operation.

With regard to my three other Patients mentioned, nothing more happened than what is common in such Wounds, and were ready to go with the same Convoy.

We cannot avoid concluding, from what happened, that the Force of the Cannon-Ball had occasioned an extraordinary Disorder in all the Tubes of the Leg of this fourth Person, which it did not in those of the other three. The State of the *Peroné* sufficiently proves the Violence of the Concussion, since the Bone was broke without being touched.

With

With Regard to the Accidents that supervened, they could only be occasioned by the universal Shock of the whole Machine, which Shocks frequently require the most earnest Attention of the Surgeons who undertake the Management of such Wounds.



OBSERV. CVIII.

Of a Compound Fracture of the Foot, and Amputation.

IN all Chirurgical Cases, and especially in compound Fractures, we cannot apply ourselves too closely to be informed of the Nature and Condition of the Distemper in the Beginning, because the Cure and Life of the Patient generally depends upon what passes during the first twenty-four Hours. We have seen, in other Observations, that if the *Genus Nervosum* suffers to a certain Degree, whether it be by an universal Shock of the whole Machine, at the Instant the Wound is received, or the Consequence of a Laceration of the tendinous Parts near the shattered Pieces of Bone; provided we delay the Performance of what Art requires, we are seldom quick enough to bring proper Relief, and rarely succeed in the Amputation of the Limb.

On the 5th of *February*, 1725, a Coachman was brought to *La Charité* who had his Leg fractured in two Places, and his great Toe, as I was informed by those who dressed him first. I believed their Report to be just; and the sooner, because I found

found the Leg roll'd up to the Knee, and all the Dressings of a compound Fracture placed according to Art. The Leg appeared very strait, therefore I thought it improper, for my own Satisfaction, to discompose a Dressing which I thought correct, and a Fracture, as I was told it was, that seemed to be well reduced. The Foot was well situated, but there was a large Contusion upon it.

As the *Metarsus* was not included in the Dressings, I observed a Wound upon the *Musculus Tenar*, and discovered a Cavity with my Probe, that extended from that Wound to the middle of the Sole of the Foot. I opened the whole Length of the Vacuity, and dressed the Wound. Tho' the Patient was bled twice that Day, a Swelling came upon the Leg in the Night, which extended to the Knee; the Fever increased, and the Patient's Head was a little disturbed. I was informed, by some Surgeons, in the Morning, who were present when the Patient was dressed, that besides the pretended Fracture of the Leg, the Articulation of the Foot was bruised to Pieces. I made no Pause to convince myself of the Truth of an Affair which seemed to answer the Symptoms I saw; and when I had loosened the Bandage I found the Foot in the very Condition they informed me it was.

To prevent greater Symptoms, I resolved to perform the Amputation. The Swelling of the whole Leg gave me Reason to fear, that the Inflammation had spread in the *Interstices* of the Muscles; therefore I made the Amputation above the Knee, which was not performed till thirty-six Hours after the Wound was made.

After the Amputation, we examined the Leg, wherein there was no Fracture, but only a considerable Contusion, which extended to the Knee. The extravasated Blood had dissected the *Gemini* and the *Plantaris*

Plantaris to their Origin. I found all the Bones of the *Tarsus* crushed in Pieces, and in their proper Places. The first Phalanx of the great Toe, was separated from the Bone of the *Metatarsus* that supports it.

The Fever, which was already very violent, subsisted after the Operation, and even increased; a *Delirium* supervened, and continued two Days with convulsive Motions, at the End whereof the Patient died. In the last Moment, Blood enough was discharged from the Stump to wet the two crucial Compresses, and the Rollers. Perhaps the Ligature was loosened by the Relaxation of the Parts at that Time; perhaps also, that some of the collateral Vessels were enlarged, as it sometimes happens.

R E M A R K S.

If then an universal Shock of the *Genus Nervosum* which proceeds from Blows, or a violent Concussion by Falls, is the original and principal Cause of the Symptoms that follow, and even of Death, by disturbing the Course of the Animal Spirits, we ought not to defer the Amputation of the Limb; and Experience teaches us, that for one Patient of that Sort, which indulgent Nature has saved without Amputation, ten will perish if the Operation is retarded.

If the Patient escapes those Symptoms, which may happen from that Cause, he rarely escapes the Reflux of purulent Matter, which generally happens at the Time the Suppuration should be established, and I am not surprized at it.

It is impossible, but the *Periosteum* must be considerably lacerated by a shattering of the Bones;

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and this is sufficient to create an *Erysipelas* or Inflammation, which extends beyond the Fracture. Another Cause of the Reflux is, that a Splinter of Bone often pricks the neighbouring Parts, which is sufficient to inflame them also. This Inflammation occasions a Suppuration in the Fat, and spreads suddenly in the Interstices of the Muscles and *Periosteum*.



O B S E R V. CIX.

Of a Luxation of the right Foot.

ON the 12th of December, 1728, a Person going down Stairs, dislocated his Foot, and broke the external Ankle. Mr. *Petit, junior*, who was sent for instantly, found the Foot luxated externally, without a Wound, but with a Fracture of the *Fibula*, an Inch above the Articulation. He reduced it, and secured the Bones in their Places by a proper Bandage, and bled him copiously three Times in twenty-four Hours. The next Day the Patient was brought to *La Charité*. As he had drank too plentifully when the Accident happened, he could give me no Account of it, or of the Dressing; therefore I resolved to inspect it, and to remove the Dressing, which seemed regularly applied.

I had scarce removed it, but I saw the Foot dislocated again, being drawn outwards by the Muscles; the fractured *Fibula* could not retain it in its Place; and the *Astragallus* being on the Side of the *Tibia* by the Luxation, the *Tibia* made a considerable Eminence in the inferior and internal Part of

of the Leg. It is easy to conceive, that this could not have happened without a terrible Extension, and, perhaps, even a Rupture of the two cross Ligaments that are within the Joint, as well as the longitudinal Ligaments that fasten the *Os Cuneiforme*. This strained Condition of the aponeurotick Parts, and the consequent Pain, caused a strong convulsive Motion in the Foot, as soon as it was dislocated, and in the whole Limb; but this Motion ceased when the Dislocation was reduced, which was not difficult.

Neither was it difficult to secure it when reduced. I took two flat thin Splinters of such Wood as they make Bandboxes, or Sword-Scabbards with: These I covered well with Linen; and the Reduction being made, I placed one upon the internal, and the other upon the external Part, so that they garnished the Leg from above the Ankle to below the Heel, and supported this Dressing with a slack Roller. The next Day a slight Swelling appeared upon the Instep, as is common in Fractures.

Bleedings were not omitted; and tho' the Patient had very little Fever, he was bled again twice. I took off the Dressing the fifth Day, to see if all was in good Condition; and in removing it, ordered my Assistant, who held the Foot, to keep it firm, whilst I raised the Splinters; and finding all in good Order, I dressed it again in the same manner. In ten Days I removed them intirely, and used only thick Compresses, supported by a Bandage.

From that Time the Patient felt very little Pain; and, in two Months, I allowed him to walk with Crutches, and he left the Hospital in a few Days perfectly recovered, having no other Inconveniency than a Stiffness in the Articulation. Without Doubt the extended Ligaments had recovered their natural Tone.



O B S E R V. CX.

Of a Gangrene from an internal Cause.

WHEN a Gangrene happens upon any Part in old People, from an internal Cause, Incisions, and even Amputations, are useless.

On the 11th of *April*, 1727, an old Man, aged seventy-two, was sent to the Hospital, who had a Suppuration upon his Foot, between the great Toe and that next to it.

I found the Skin off from between the Toes to the middle of the *Metatarsus*; which Part had a bad Appearance, that is to say, the middle of it was covered with white Eschars, and at the Circumference was a Border about a Finger's Breadth, red, and tumefied. The Patient told me, it was the Remainder of a Chilblain he had got by wearing a Pair of Shoes that took Water. He felt very little Pain in the Ulcer, but more towards the Articulation of the Foot, where a Redness and Swelling appeared, and the Impression of my Finger remained upon it.

I knew it to be a Gangrene from an internal Cause; and when I had prognosticated certain Death, ordered the Ulcer to be dressed with *Storax* and Spirit of Wine camphorated. During the first Fortnight, what seemed only a small Ulcer, spread itself all over the *Metatarsus*. It is the Property of those Gangrenes proceeding from an Impove-
rishment

rishment of Blood, never to be attended with much Pain ; but this is not without Exception.

As I mentioned nothing of an Amputation, being assured that the Patient would die, do what I could ; some ill-designing Persons declared loudly, that I suffered a Man to perish, who might recover by amputating his Leg.

To avoid all manner of Reproaches, the fifteenth Day after his Entrance into the Hospital, I had a Consultation with several of the Fraternity, who were willing to come to the Hospital. During the Time we were in Consultation, the Patient, who would have lived some Time to all Appearance, since he was sitting when we visited him, died suddenly.

R E M A R K S.

To cure a Gangrene proceeding from an internal Cause, you must be able to change the ill Disposition of the Blood in a short Time, and to invigorate it ; but it has been hitherto impossible.

Therefore, in this Kind of Gangrenes, we must not be too precipitate to perform the Operation ; because the Gangrene soon appears afterwards above the Amputation, by which Means, we may render our Operations odious, which we ought not to perform, only in such Cases where we have Reason to hope for Success, or, at least, to prolong the Life of the Patient.

If the Question be asked, Why this Sort of Gangrene appears so soon upon the Limb, even where we have operated, tho' it does not affect any other Limb ? I believe it is, because every Incision is, of Necessity, followed by a slight Inflammation, or Tumefaction. This seems to me sufficient to occasion a Mortification, when there is a gangrenous

Disposition in the Blood. Moreover, the Compression of the Bandage may, in some Measure, retard the Course of the Fluids, and even stop the Circulation, in a Part where they moved very slowly before.



O B S E R V. CXI.

Of a Gangrene attending an Antrax, or Carbuncle.

Carbuncles that happen upon old People, always presage something bad, and seem to pronounce a Destruction of the vital Principles of the Blood. I have observed, in the Course of my Practice, that those who recover, seldom long survive them, unless they are attacked by some violent Distemper.

In the Month of *July*, 1725, a Priest, seventy Years of Age, was conducted to the Hospital, who had two Carbuncles, one upon the *Metatarsus*, open, and as big as a Crown; the other smaller, upon the second Toe of the same Foot. I made a bad Prognostick upon it, his Complexion being yellow and fallow, with a languishing Countenance: Nevertheless, by Assiduity and Care, the Eschars separated, and the Wound became of a good Colour. In a Fortnight's Time the upper Part of the Foot tumefied, and changed of a Purple Colour; the Patient was seized with Pains all over his Body, especially in both Legs and Feet; a Difficulty in making Water followed, and, at length, a Gangrene appeared upon both his Legs, and his Left Hand, of which he died in two Days. I opened him, and found the Bladder almost gangrened.

This

This Observation may be useful to regulate the Surgeon's Prognostick in parallel Cases. Since all Mankind must die one after the other; and that notwithstanding this, we are generally required to give an Account of the Patients committed to our Care, a just Prognostick secures our Reputations, and the Honour of the Profession, and may even determine a Patient, at the same Time, to regulate his spiritual and temporal Affairs.



OBSERV. CXII.

Of a Caries in the Metatarsal Bone that supports the great Toe.

IN the Month of *November*, 1726, a Man about twenty-nine Years of Age, having a Pair of Shoes that were too strait, he still continued to wear them, not regarding a little Pain he felt by the Compression: But eight Days after, he perceived a Tumour upon the Joint of his great Toe and his Instep, without any Alteration in the Colour of the Skin. He put Compresses steeped in Brandy upon it for several Days; but the Tumour, instead of diminishing, grew more painful. He shewed it to a Woman; and as there are Empiricks of both Sexes, she gave him a Plaister, and the Tumour burst in a few Days, discharging a large Quantity of Pus. This suppurated a short Time, and then he shewed it to a Surgeon, who prudently advised him to have it enlarged, that he might discover the Bottom of the Wound, and apply proper Medicines to it. The Patient would not

consent, and passed near eighteen Months in the Hands of all the Empiricks in *Paris*; one of whom charged him with having the *Lues Venerea*; another a scrophulous Distemper; who all sold him Abundance of Remedies. At length, finding himself ruined in Body and Purse, he came to *La Charité* the 25th of *November*, 1727.

I examined his Distemper, and found a Tumefaction upon the great Toe, extending a little above its Articulation with the *Metatarsus*, and a small Hole in it, from whence a little *Sanies* distilled. I introduced my Probe, and finding it locked in a bony Part, I was dubious whether it was in the Joint or not. To be convinced of it, I left the Probe in, and moving the great Toe, I found the Probe did not stir; from whence I concluded, that it had entered into the Bone of the *Metatarsus*, which was carious. Finding no other Remedy than the Amputation of it above the *Caries*, I prepared the Patient by Bleeding and Purging, and then proceeded to the Operation, which I performed in the following Manner.

As this Amputation is more difficult than that of the Leg, and not described in those Treatises upon Operations that have hitherto appeared, I thought myself obliged to describe it, in favour of young Surgeons.

To leave as much as possible of the *metatarsal* Bone which supports the great Toe, and is essential in walking, I resolved to saw it in the Middle, beyond the *Caries*; the Amputation being less painful in this Place, and less susceptible of Accidents, than when it is performed by separating the *metatarsal* Bone from that of the *Tarsus* which supports it; and even the Cure is more expeditious.

I began by cutting with a Bistoury between the great Toe and the second, carrying on my Incision
I between

between the two Bones of the *Metatarsus*, till I came above the Place where the Ligaments were tumefied, and the Skin had changed Colour, that I might cut into the sound Part of the Bone. The circular Incision, in that Place, cannot be made but at twice; that is to say, at two half Turns. To effect this, I put the Middle of an hollow Probe at the Bottom of the Incision, and the *Cranula* of it served me to conduct the Point of my crooked Bistoury easily, between the two Bones of the *Metatarsus* upon the Foot: Here beginning my first half Turn, I finished it at the internal Part of the Foot; then I put the Point of my Bistoury again into the *Cranula* of the Probe, next the Sole of the Foot, and made the other half Turn. Thus these two half Turns exactly met; (for it is very material that they should exactly occur, and seem to make but one circular Incision.) Then, withdrawing the Probe, I slit a flat thin Plate of Lead between the two *metatarsal* Bones, that the last Stroke of the Saw might not touch the Bone which supports the second Toe, and the Muscles surrounding it, which would lacerate them, and sawed the Bone of the *Metatarsus* in the Middle; then dressed it with dry Lint, and a proper Bandage.

I left this Dressing on for three Days, that the Suppuration being established, the *Pus* might loosen the Lint. Two Hours after the Operation, I ordered the Dressing to be moistened with Oil of Roses, which was often done in three Days. I removed the Dressing the third Day, and took off all the Lint, without creating the least Pain. I dressed it afterwards like a simple Wound, and by six Weeks regular Management, it cicatrised without any apparent Exfoliation of the *Metatarsus*.

R E M A R K S.

Had the Patient suffered the Surgeon to have acted, who was willing to discover the Bottom of his Distemper, perhaps he would have been cured in a short Time, might have saved his Toe, and have avoided all that Pain he said he had endured, during the eighteen Months he was under the Empiricks Hands. *Subl*

When I say he might, perhaps, have been cured in a short Time, it is because I cannot conceive, that the Compression made by the Shoe could have altered the Bone; it might have occasioned an Inflammation, which extended to the *Periosteum*, and other tendinous Parts which cover the Bone of the *Metatarsus*. Their Putrefaction succeeded the Inflammation, and the Eschars, as well as the *Pus*, not having a free Passage, that altered the Bone, into which the *Caries* easily penetrated, both on Account of its spongy Texture, and the Situation of the Distemper, which was directly upon the Foot. Hence I believe, that the Bone was not discovered and carious, but by the Stagnation of the *Pus*, which was detained upon it, without being discharged; from whence I conclude, that a free Passage for it cannot be made too soon, to avoid the Disorders caused by its Stagnation.

When we perform an Operation that furnishes only Blood, it is an essential Precaution, to moisten the first Dressing several Times with some warm Oils, to a proper Degree. By this Precaution, I have many Times prevented Inflammations at the Circumference of Wounds, a common Consequence of Operations; and, perhaps, have even prevented a Reflux of purulent Matter, which I have observed to happen in some Cases, where I have not taken this Method.



O B S E R V. CXIII.

Of a Caries in the Os Sefamoides.

TOO great an Attention cannot be given to Inflammations, and even Pains that happen in the Joints, from what Cause soever they proceed. Should the Inflammation be in the *Capsula* that embraces it, and the Progress not soon stopped, there is almost a Certainty of its coming to Suppuration; and if it suppurates, the Loss of the Limb is almost infallible, which will plainly appear by the following Observation.

In the Month of *June*, 1726, a Man aged Forty, was sent to *La Charité*, who had the great Toe of his right Foot very much swelled: On that Side next the Sole of the Foot, and upon the *Metatarsal* Bone, near its Articulation with the great Toe, was a soft Tumour, which to the Touch, seemed to form a fungous Flesh; but a Fluctuation was to be felt in it notwithstanding. Moreover, there were three Holes around the Articulation, two whereof seemed to pierce the *Musculus Tenar*.

At first Sight, I did not in the least doubt but there was a *Caries*, tho' I could not discover it with my Probe, on account of the excessive Pain it occasioned; but the external Part of the Tumour sufficiently indicated it, as well as the Time of its Duration.

I opened the Tumour, although the Fluctuation was dubious, and the Cavity conducted my Finger to one of the *Ossa Sefamoidea*, which I found perforated
in

in small Holes. At the same Time, I perceived that the Articulation was loose, and the *Pus* was spread between the Bones. This obliged me to resolve instantly upon the Amputation of the great Toe in that Articulation, and to take off the two *Ossa Sesamoidea* at the same Time.

In the Operation, I found no Alteration in the Head of the *Metatarsal* Bone, which I had made bare; but afterwards, upon Examination of the Toe I had amputated, I found the Corner of the first *Phalanx* carious, and the *Capsula* embracing the Articulation partly destroyed and putrefied. The *Cartilage* covering the Head of the *Metatarsal* Bone being found, it was covered with laudable Flesh in less than a Fortnight, and the Patient was perfectly cured in five Weeks.

R E M A R K S.

Might not this *Caries* have began in one of the *Ossa Sesamoidea*, or rather from a Suppuration of the *Aponeurosis* that covers them, which might have been contused by some accidental Stroke of the Foot against a solid Body?

If, in great Contusions upon the Articulations, you suffer the Distemper to increase to a certain Degree, and proper Remedies are neglected, the *Capsula* of the Articulation suppurates, the neighbouring Bones soon become carious, and the Distemper daily increases, and then we are obliged to proceed to a grand Operation.

OBSERV. CXIV.

Of a Caries upon the great Toe, from an internal Cause.

CHirurgical Distempers, which are the Consequences of a bad Disposition of the Blood, cannot be cured without destroying that internal ill Habit of Body ; and if Grief (as every one knows it is) is capably of altering the Fluids, Tranquillity of Mind, on the contrary, is capable of repairing them ; which you will see in the following Observation.

On the 1st of *March*, 1728, a Man was received at *La Charité*, who had a gangrenous Ulcer for two Months at the Extremity of the great Toe, which, he told me, was the Consequence of a Chilblain, caused by excessive Cold. Added to this, he had a lived Complexion, and a violent *Diarrhæa* ; whence I concluded, that Cold was not the only Cause of his Ulcer, but he had some foul Leven in his Blood, of which this Ulcer might be the Consequence, and that the Chilblain had only determined it. When I examined the local Disorder, I found with my Probe, thro' the fungous and semi-putrefied Flesh, that the first *Phalanx* was carious. One Part of it was easily separated with my Spatula, and then I took off the bad Flesh that surrounded it.

Altho' I was certain that the other Part of the *Phalanx* was likewise carious, I left it, hoping it might fall off in the same manner, and thought it

too

too soon to remove it. (And Experience, too fatal, informs us, that in Gangrenes from an internal Cause, the Distemper discovers itself in proportion as we make Incisions, if the ill Habit of the Blood is not repaired.) Therefore I thought proper to begin that Work, before I employed the efficacious Assistance of Surgery.

Mr. *Renaulme*, the Physician of *La Charité*, visited the Patient for six Weeks, and administered all that he thought most convenient in his Case. At length the *Diarrhæa* ceased, the Patient's Complexion seemed to be re-established, and the Distemper upon the Foot to be limited; therefore I advised the Patient to quit the Air of the Hospital, and to breathe his native Air for some Time. He returned to *La Charité* again in six Weeks.

As he seemed to be tolerably well restored, I now thought his Cure might be undertaken, and separated in the Joint the rest of the first *Phalanx*, which was entirely carious. The second *Phalanx* was not; but, to the Touch, the Bone seemed tumefied, soft, and, as it were, carnified. Nevertheless, I was in an Uncertainty, since the Skin that covered it being of its natural Colour, it would, perhaps, have been useless and improper to perform a second Operation; therefore I proceeded no farther, and dressed the Wound methodically. During the first Fortnight, the Wound seemed to have a Tendency to heal; but at the Period of that Time, carious Excrescences appeared upon the Bone, and round the Circumference. I endeavoured, in vain, to dissolve them with *Aq. Mercurialis*, or *Lapis Infernalis*; every Attempt was fruitless; whether some bad Leven still remained in the Mass of Blood, or whether the Carnification of the Bone was the Cause, the Wound had a very bad Appearance. Mr. *Renaulme* prescribed attenuating

nuating Bolus's, and sudorifick Ptisans, in vain; these did not prevent the *Fungus* from rising; the Wound bled upon the least Touch; at length a *Sinus* appeared, which conducted my Probe to the Marrow of the Bone, and determined me to amputate it in its Articulation with the *Metatarsal*.

Now I believed that I might compleat the Cure, because the Patient had been some Time under a proper Course of Physick, and had recovered his Strength; but fresh Excrescences arose, and many *Sinus's* discovered themselves. One was formed in the anterior Part, which extended to the Middle of the *Metatarsal* Bone, and seemed by the Probe to be discovered; another extended superficially along the *Musculi Extensores*.

Mr. *De la Peyronie* being come to the Hospital, with Messieurs *Gerard*, and *Morand, junior*, we entered into a Consultation, and agreed to open all the *Sinus's*, and prosecute the Distemper, and then resolve whether we should preserve, or take off the Bone, according to the Condition in which it should appear.

The Patient finding himself reduced to a third Operation, was three or four Days in continual Inquietudes, not knowing what Resolution to take, being sometimes willing, sometimes unwilling, always ready to leave the Hospital, and not going. I thought proper to allow him a little Time for Reflection; and being unwilling to perform an Operation without his Consent, I suffered four or five Days to pass: At length he came to a Resolution, that I might do what I pleased; and appeared to me, when he told me this, much more composed than I had seen him before.

The next Day, I observed a more natural Colour in the Wound, which made me wait. In less than four Days so considerable a Change happened, that
I was

I was not obliged to perform the Operation, and the Patient went from the Hospital the twelfth Day, perfectly cured.

R E M A R K S.

It is in vain to operate upon an Ulcer produced by a bad Leven, which has altered the Lymph, unless the Cause be first destroyed.

We must not precipitate our Operations, when there is no Danger. Nature herself, who often operates better than we can for the Preservation of the Species, furnishes, sometimes, more speedy and certain Relief than we are able to supply.

When a Bone is distempered, the Flesh that covers it is always of a bad Quality; therefore the Quality of the Flesh declares whether the Bone is sound or not: and this ought to determine us, whether we should leave it, discover it, or take it off.



O B S E R V. CXV.

Of an Ulcer upon the External Ankle.

ULCERS may be looked upon either as Drains, of which Nature has made choice to relieve herself, or as local Disorders.

Those of the second Kind are always precarious; and if you heal them, although they are new, the Patient runs the Hazard of perishing by some other Distemper in a short Time, unless the Ulcer returns. *Vide Observ. XXXIII.*

Those

Those of the second Kind, are, generally, the Consequence of a Wound ill managed. They either suppurate for many Years, or else they are fresh. If they have suppurated for a long Time, that Evacuation to which Nature has been accustomed, is to be observed, since, by Habit it is become necessary; but when they are fresh, we may, and ought, to undertake the Cure. Their Appearance, and the Quality of their Lips, render the Performance more or less difficult.

Those which are of an irregular Figure, that is to say, such as have Angles, heal more easily than the rest; but those that are round, are very tedious and difficult to heal; because the *Succus Nutritius*, distilling from every Point of the Circumference, meets with no other Juices to form a Cicatrice, as in Wounds that are long; or in a Bleeding, where the Lips may be approached one against the other.

Those whose Lips are soft, and not elevated, heal likewise with much Difficulty; but hard and callous Lips, that sometimes surround them, are an Obstruction to the Cure; because the *Succus Nutritius* filters itself thro' the Lips, and leaves the balsamick Part in their Substance, so that the Serosity alone can pass; and, indeed, the Ulcers, instead of furnishing a white thick *Pus*, evacuate only a thin clear *Sanies*. The Center of these Ulcers is generally filled with bleeding Flesh, and the Lips form a Crown around it more or less elevated.

Some Authors propose to take off the callous Lips, and to change the Figure of the Ulcer by an Incision. To cut off the Lips, is, it is true, a sure Method to obtain a Cure; but it is a tedious one, since it cannot be performed without Loss of Substance. I agree with them, that it is proper to change the Figure of the Ulcer; but as they have not described the Method by which it is to be per-

formed, I am going to determine it, and in the following Observation communicate to you a Method which has always succeeded. Amongst all those Ulcers that have been under my Care, I have made choice of one that appeared to be the most obstinate.

In the Year 1728, a Person had a violent Strain of the Ankle, and, to Appearance, had occasioned a *Diastasis*; for the external *Malleol* remained very large and protuberating. In the Beginning of the Year 1729, a Piece of Wood fell upon this Ankle, which took a small Portion of Skin off. He dressed himself according to his own Manner, and I am ignorant of what passed; but the 20th of September, in the same Year, he came to *La Charité*.

I found an Ulcer an Inch and a Quarter in Diameter, exactly in the Center of this protuberating Ankle, as round as tho' it had been described by a Pair of Compasses; and the Lips were white, forming an hard Crown a Quarter of an Inch thick; the Middle of it was of a clear shining red.

I ordered the Patient to be bled, and purged him twice, and to begin mollifying the Lips. I ordered a Plaister to be applied, composed of *Diach. cum Gummi*, and *Empl. de Ranis* mixed together. The Plaister was renewed Morning and Evening, in order to wipe off the *Sanies*, and that the Plaister might touch the Lips of the Ulcer. In four or five Days Time the Skin of the Lips seemed somewhat softer, but the Thickness was the same, which made me resolve to suppurate them.

To this End, I scarified the Lips of the Ulcer all manner of Ways, with a round Lancet without a Point; Scarifications that penetrated the whole Thickness. This bleeding a little, I put a Piece of dry Linen upon it till the Blood was stopped,

and in about half a quarter of an Hour applied the same Mixture of Plaisters.

In four Days I began to scarify the Lips again, and thus I did a third and fourth Time, and then the hard Lips disappeared, or were rather softened, so that the Cicatrice advanced; and the Patient left the Hospital the 21st of *October*, perfectly cured.

I have often scarified the Lips of Ulcers in this manner, and applied the same Plaisters, and always with equal Success, the Ulcer healing in a short Time.

You must not be surprized at this, since two Things contribute towards it. First, the Fluid condensed in the Lips of the Ulcer is partly evacuated with the Blood, when the Scarifications are made. Secondly, the mixed Plaisters bring all those small Wounds to Suppuration. Those who have not practised Surgery long, know that these Plaisters either dissolve, or bring the most obstinate Tumours to Suppuration: Therefore, in the present Case, the Mercury in one Plaister insinuates itself, and makes Passages, into which the active Particles of the Gums contained in the other, enter, to dissolve and divide the Lymph there stagnated and condensed.

With the Mixture of these Plaisters alone, I have sometimes healed very callous Ulcers, without any Scarifications; but it is much more preferable to make them, since the Cure is advanced thereby.



Topical, and other Medicines,

Mentioned in the

OBSERVATIONS.

An Emollient Cataplasm.

TAKE Mallows, Marshmallows, Mullein, Groundsel, of each an Handful, grossly chopt. Boil them in two Quarts of Water, to the Consumption of the half; then strain it, and press out the Liquor. Take this Liquor, and add a sufficient Quantity of the four Flowers to it; then boil it to the Consistence of a Cataplasm. When it is boiled, to make it more emollient, and prevent its drying, add half an Ounce of Ointment of Marshmallows.

A Discutient Cataplasm.

Take half a Pint of Wine, and boil in it half a Pound of Honey; when it begins to thicken, add the Yolks of four or five Eggs, mixed with a Spoonful or two of Wine only; then let it boil again a little longer.

A Maturating Cataplasm.

Take an Handful of Sorrel, and as much Beet; stew them over the Fire in a Pipkin, without Water, keeping them stirring continually. When the Herbs

M E D I C I N E S.

are soft, mix three Ounces of Leven with them, and as much Hogs-Lard.

A Simple Digestive.

Take four Ounces of Arcæus's Balsam, fresh made; melt it, and add to it half an Ounce of Oil of St. John's Wort.

Another Digestive.

Take two Ounces of Venice Turpentine, beat the Yolk of an Egg well into it, then add six Drachms of Oil of St. John's Wort.

Animated Digestive.

Take two Ounces of Turpentine, beat it well with an Ounce of Brandy; when it is mixed, add half an Ounce of Ointment of Storax, the Yolk of two Eggs, an Ounce of Oil of St. John's Wort, two Drachms of Aloes in Powder, and as much Myrrh.

A Deterfive Injection, which may serve for a Gargle.

Take an Handful of Barley, boil it in a Quarter of Water, till the Barley cracks; throw this Water away, and boil the Barley a Quarter of an Hour in a second Water; then strain it, and add to it an Ounce of Honey of Roses. To make it desiccative, instead of Honey of Roses, add more or less Arquibufade Water, as Necessity requires.

A Mer-

M E D I C I N E S.

A Mercurial Water.

Put two Ounces of good Aqua Fortis into a Glass Matrafs, and an Ounce of Crude Mercury; set the Matrafs upon hot Embers, till the Mercury is dissolved.

Another allayed.

Take the Dissolution of Mercury in Aqua Fortis, as described above; and pour three Pints of Fountain, or distilled Water upon it.

Sky-colour'd, or Celestial Water.

Take half a Pound of Verdigrise, a Pound of white Copperas, both finely powdered; put them into a Pan, and pour three Gallons of boiling Water upon them by Degrees, keeping it stirring with a Stick; then let it settle twenty-four Hours. To make use of it, you must boil a Cauldron of Water, and let it stand till it is cold; put this Water into another Pan, and when you have stirred the first well, add so much to the other till the Water becomes soft.

This Water is excellent upon an infinite Number of Occasions: For Distempers in the Eyes it must be well diluted.

A Defensive.

Take the Whites of three Eggs, beat them with half an Ounce of Roch Allum in Powder, adding now and then a Spoonful of strong Vinegar; add to it three Ounces of Bole Armenie in fine Powder; beat the whole well together, and add a sufficient Quantity of Vinegar to make it more or less liquid, according as it is required.

M E D I C I N E S.

The purgative and sudorifick Pilsan, mentioned in
Observ. CIII.

*Take Sarsaparilla three Ounces, Sassafras one Ounce,
Senna, Turpeth, Hermodactyles, Polybody of the Oak,
half an Ounce of each; Cinnamon and Liquorice, of
each two Drachms; Crude Antimony, grossly powdered
and tied in a Bag, four Ounces.*

*Boil the Whole twenty-four Hours in six Quarts of
Water, to the Consumption of the half.*





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A

GENERAL CHIRURGICAL DICTIONARY.



A



Abdomen, the Belly or Paunch, or the Cavity of the Body from the Diaphragma to the Os Pubis.

Abductores, Muscles so call'd from their Use.

Ablactatio, a Weaning in general.

Ablutio, a Washing or Rinsing.

Abomasum, the fourth Ventricle in Animals

chewing the Cud.

Abortio, a Miscarriage, or untimely Birth.

Abrasio, a Rubbing off, by a superficial Rising of the Skin.

Abscessus, a Cavity containing Pus or Matter.

Abscissio, the Cutting off any Part.

Absorbere, to drink or suck up.

Abstergentia, Abstergents or cleansing Medicines.

Acceleratores, Muscles so call'd from their Use.

Accretio, a Growing together, as may happen to the Fingers.

Acetabulum, a Socket for the Head of the 'Thigh-Bone.

Achlys, a Dimness of the Eyes.

Acores, a Scald-Head.

Acme, the Height of a Disease.

Acoustica, Medicines to prevent Deafness.

C c

Acromion,

A

A

Acromion, the upper Part of the Scapula or Shoulder-Bone.

Acutus Morbus, a dangerous Disease which is finish'd in a short Time.

Adductores, Muscles so call'd from their Use.

Adeps, Grease or Fat.

Adiposi Ductus, the Bags or Ducts containing the Fat.

Adnata, the outward Coat of the Eye, call'd also Conjunctiva.

Ægilops, a Distemper in the Eye common to Goats; but properly a Tubercle attended with Inflammation.

Ægyptiacum, a Deterfive Ointment so call'd from its Colour.

Ærugo, Verdigrease.

Æthiops, a Chymical Preparation, so call'd from its Colour.

Ætiologia, a Treatise of the Causes of Diseases.

Albuginea, the Coat which makes the White of the Eye.

Albumen Ovi, the White of an Egg.

Alæ Nasi, the Wings or Sides of the Nose.

Alexipharmaca, Medicines that expel Poison of any kind.

Alexiterium, any Preservative Medicine.

Allantoides, a Membrane that envelops the Fœtus.

Alopecia, the Falling of the Hair.

Alveolæ, the Sockets into which the Teeth are set.

Alvus, the Belly or Paunch.

Amatorius, one of the Muscles that moves the Eye.

Ambe, an Instrument us'd in Dislocations of the Arm.

Amblyopia, a Dimness of Sight.

Amnion, one of the Membranes of the Fœtus.

Amphiblestroides, the Retina, or Net-like Coat of the Eye.

Amputatio, the Cutting-off of a Limb.

Anacatharsis, an Expectoration.

Anaplerosis, the Restitution of any wasted Part.

Anapleusis, when a Bone corrupted with vitious Juices falls out of its Socket.

Anasarca, a Species of Dropsy.

Anastamosis, the Inosculation or mutual Opening of the Vessels into one another.

Anatomia, the Dissection of a Body.

Anchyle, a Contraction or Stiffness of the Joints.

Aneurisma, false, a Bursting of Blood out of an Artery.

Angina, a Tumour in the Throat call'd a Quinsy.

Ani Procedentia, a Falling-down of the Fundament.

Antiscorbutica, Medicines good against the Scurvy.

Antrax, a red fiery Tumour, such as appears in the Plague.

Annularis,

- Annularis Cartilago*, a Gristle so call'd from its Shape.
- Antagonista*, a Muscle whose Action is contrary to its Opposite.
- Antaphroditica*, Medicines against the venereal Disease, the same as Antivenereal.
- Antelix*, that Part of the Ear opposite to the Helix.
- Anthropologia*, any Treatise concerning Man.
- Anticardium*, the little Hollow at the Bottom of the Breast, commonly call'd the Pit of the Stomach.
- Antidotus*, any Medicine or Application against Poison.
- Antidyfenterica*, Medicines against a Looseness.
- Antithenar*, one of the Muscles that extend the Thumb.
- Anus*, the Fundament, so call'd from its Circular Fibres.
- Aorta*, the great Artery of the Heart.
- Aphæresis*, the Taking away any superfluous Thing.
- Apocope*, a Cutting off, an Extirpation.
- Aponeurosis*, the Tendon or Tail of a Muscle.
- Apophysis*, the Process or Protuberance of a Bone.
- Apoplexia*, an Apoplexy.
- Aposceparnismos*, a Species of Fracture, when Part of the Bone is chipp'd off.
- Aposstasis*, when a Fragment of a Bone comes away by a Fracture.
- Apostema*, an Imposthume or Collection of Matter.
- Apostolorum Unguentum*, an Ointment so call'd from the twelve Ingredients in the Composition.
- Apothesis*, the Reduction of a dislocated Bone.
- Apozema* a Decoction.
- Apparatus*, the Medicines, Instruments, &c. to be got ready before an Operation.
- Appendix*, an Epiphyse or simple Joining of two Bones.
- Aquæ Ductus*, the anterior Part of the bony Channel of the Ear, that goes from the Ear to the Palate.
- Aquila Alba*, Mercurius Dulcis.
- Arachnoides*, the Epithet to one of the Coats of the Eye, resembling a Spiders-Webb.
- Armilla*, the round Ligament that confines the Tendons of the Carpus.
- Arteria*, an Artery.
- Arteria Venosa*, the Vein of the Lungs.
- Arteriotomia*, the Opening of an Artery.
- Arthrodia*, Articulation in general.
- Arthritis*, the Gout.
- Articulatio*, Articulation or Jointing.
- Arytænoides*, the Ewer-like Cartilage.

A

A

- Ascites*, a Species of Dropsy so call'd.
Aspera Arteria, the Windpipe.
Asthma, a Difficulty of Breathing.
Astragalus, one of the Bones that constitutes the Tarsus.
Astringentia, Medicines that bind up.
Atheroma, a Tumour containing Matter like Pap.
Atlas, the Vertebra of the Neck that sustains the Head.
Atomus, an Atom, or invifible Body.
Atrophia, a Consumption.
Attenuantia, Medicines that thin the Juices of the Body.
Attrition, is that Motion of the Stomach that affifts in Digestion.
Auditorius Meatus, the Passage that conveys the Air to the auditory Nerve.
Auricularis Digitus, the little Finger, so call'd because frequently apply'd to
Auris, the Ear.
Auricula Cordis, there are two Orifices of the Heart so call'd, that answer the two Ventricles.
Axilla, the Armpit.
Axis, the first Vertebra of the Neck.
Axungia, Hog's Lard.
Arigos, a Vein so call'd because it has no Fellow.

B

- Balanus*, the Glans or Nut of the Yard.
Basilica Vena, the Basilic Vein.
Basilicon Unguent, the Royal Ointment.
Basiloglossi, two Muscles that deprefs the Tongue.
Bechita, Expectorating Medicines.
Bibitorius Musculus, the drinking Muscle.
Biceps Musculus, a double-headed Muscle.
Brachiaeus Musculus, a Muscle of the Arm.
Bregma, the Side and Shelving Bones of the Cranium on each Side the Sagittal Suture.
Bronchocele, a Tumour in the Throat.
Bronchotomia, the Operation of cutting the Windpipe.
Bubo, a Tumour in the Groin.
Bubonoccele, a Rupture in the Groin when the Intestines fall into it.
Buccinator, the round, or rather triangular Muscle of the Cheek, call'd the Trumpeter's Muscle.
Bupthalmum, Ox-ey'd.

Bursa,

B

Bursa, the Scrotum ; it signifies a Purse.
Bursalis Musculus, a Muscle of the Thigh.

C

C

Cachexia, an ill Disposition of the Body.
Cacochymia, a bad Habit of Body from vitiated Juices.
Cacoethes, an evil Ulcer, Boil, or Sore.
Cæcum Intestinum, the blind Gut, so call'd from being perforated at one End only.
Cæsarea Sectio, the Operation of cutting a Child out of the Womb.
Cadaver, a dead Carcase.
Calamus Scriptorius, a Dilatation of the Brain near the fourth Ventricle, which takes its Name from its Resemblance to a Pen.
Calculi, little Stones in the Bladder or Kidneys.
Callus, any Hardness in the Skin, or other Part of the Body.
Camarosis, the Scull broken in the form of an Arch.
Cancer, a Tumour wherein the Veins swelling resemble the Form of a Crab.
Canini Dentes, the Dog, or Eye Teeth.
Capillaria Vasa, Vessels so call'd from being as small as Hairs.
Capsula Cordis, the same as Pericardium.
Caput Mortuum, a dead Head.
Carcinoma, the same as Cancer.
Carbunculus, a fiery Tumour, the same as an Anthrax.
Cardialgia, a Pain at the Stomach, call'd the Heart-burn.
Caries, a Rottenness or Foulness of the Bone.
Carminativa, Medicines expelling Wind.
Carnosa Membrana, a fleshy Membrane.
Carotides, the Name of two Arteries of the Neck.
Carpus, the Wrist.
Cartilago, a Gristle.
Caruncula, a little Bit of Flesh.
Carus, a profound Sleep.
Catagma, a Breaking of Bones.
Catamenia, the menstrual Flux in Women.
Cataplasma, a Poultice.
Cataracta, a Skin growing over the Eye.
Catarrhus, a Defluxion of Rheum.
Cathuretica, Causticks.
Cathartica, Purging Medicines.

Catheter, an hollow Instrument introduced into the Bladder in the Operation for the Stone.

Catholicon, a general Medicine or Panacea.

Catius, an Instrument to extract a dead Child.

Catulotica, Medicines that cicatrise Wounds.

Cautistica, Caustick or burning Medicines.

Cauterium Aëtuale, a burning Iron.

—————*Potentiale*, a Caustick or burning Stone.

Cele, any Tumour, but chiefly those of the Scrotum.

Cellulæ, Cells, or small Cavities.

Cephalalgia, a Pain in the Head.

Cephalica, Medicines for the Head.

Cephalopharyngei, a Pair of Muscles belonging to the Throat.

Ceratotoides Tunica, the same as Cornea.

Ceratoglossum, the proper Muscle of the Tongue.

Ceratum, a Cerate or Plaister made with Wax.

Cerebellum, the little Brain on the back Part of the Head.

Cerebrum, the Brain.

Cervix, the Neck.

Chalazion, a little Tumour upon the Eyelid.

Cheilocace, a Canker in the Mouth or Lips.

Chemosis, a Tumour in the White of the Eye.

Chiragra, the Gout on the Hands.

Chironium, an inveterate Ulcer.

Chlorosis, the Green-Sickness.

Choana, the Funnel that carries the Excrement of the Brain to the Glandula Pituitaria.

Cholagoga, Medicines purging Melancholy.

Choledochus Ductus, the common Biliary Duct.

Cholera Morbus, a Flowing of the Gall upwards and downwards.

Cholericus, Cholerick.

Chondrosyndesmos, a cartilaginous Ligament.

Chorda, a Tension of the Penis when its Head is drawn downwards.

Chorion Sancti Viti, a Species of Madness, call'd St. Vitus's Dance.

Chorion, the outward Membrane that covers the Fœtus.

Choroides Plexus, a Folding of the Carotid Artery in the Brain.

Chronicus, the Epithet to a Disease of long Continuance.

Chylificatio, the Action of the Stomach by which the Food is turn'd into Chyle.

Chylus,

Chylus, the white Juice separated from the Stomach and Intestines.

Cicatrix, the Scar of a Wound.

Cilium, the Edge of the Eyelid, out of which the Hair grows.

Cion, the falling of the Uvula.

Circumossalis, see Periosteum.

Cirsocele a Swelling of the Vasa Preparantia about the Testicles.

Clasis, a Fracture.

Claviculae, the Collar Bones that keep the Shoulder and Breast Bones firm.

Clinoides, a Process in the Sphenoid Bone of the Skull.

Clitoris, a Part of the Pudendum Muliebre, the Seat of Titillation.

Coagulum, the thick Part of the Blood that floats in the Serum when cold.

Coagulatio, a Coagulation or Curdling.

Coalescentia, a Growing together.

Coarticulatio, see Synarthrosis.

Coccyx, the Spine of the Os Sacrum, or Rump-bone.

Cochlea, the internal Cavity of the Bone of the Ear.

Cochleare, a Spoonful.

Coctio, a Fermentation in the smallest Particles of the Aliments.

Cæcum Intestinum, the blind Gut.

Cæliaca Arteria, an Artery of the Intestines so call'd.

Cæliaca Passio, the Celiack Passion, a Distemper in the Intestines.

Cæлома, an hollow Ulcer about the Iris of the Eye.

Colliculum, the same with Nympha.

Collirium, a Remedy for the Eyes.

Collobomæ, the Growing together of the Eyelids.

Colon, the Fifth of the Intestines from the Stomach.

Columella, the same with Cion.

Columna Cordis, the Basis of the Heart.

Commissura, a Suture.

Coma, a Disease causing heavy and long Sleep.

Coma Vigil, a watching or waking Coma.

Comitialis Morbus, the same as Epilepsy.

Complexi Morbi, compound Diseases.

Complexi Musculi, the third Pair of Muscles belonging to the Occiput.

Compressus, a Compress.

Conarium, the Glandula Pinealis, so call'd from being shap'd like a Cone.

Concha, see Cochlea.

Conductor, an Instrument used in the Operation for the Stone.

Condyloma, a Wart especially about the Fundament.

Condyli, Knots in the Bones about the Joints of the Fingers, which make them thicker.

Conglobata Glandula, a Gland subsisting by itself, as those of the Mesentery, &c.

Conglomerata Glandula, is that which consists of various Glands, each having a secretory Duct.

Conjunctiva Tunica, see Adnata.

Conglutinatio, a Glewing together.

Conoides, see Conarium.

Consolidans, a Medicine that produces new Flesh.

Continuitas, the Connexion of solid Bodies.

Contorsio, an incompleat Dislocation of a Joint.

Contractio, the Contraction of any Muscle or Part.

Contusio, a Contusion or Bruise.

Convulsio, a Motion of the Muscles independent of the Will.

Cephalosis, a Deafness.

Coracobrachiceus, a Muscle of the Arm arising from the Processus Coracoides.

Coracohyoïdes, a Muscle arising from the Process of the Scapula, call'd Coracoides, and inserted into the Os Hyoides.

Coracoides, a Process in the Scapula, like a Crow's Beak.

Cornea, the external Coat of the Eye, transparent like Horn.

Cornua Uteri, two lateral Parts of the Womb resembling Horns.

Coronalis Sutura, the Suture upon the Crown of the Head.

Coronaria Vasa, Vessels that surround the Heart like a Crown.

Corone, an acute Process of the lower Jaw-Bone.

Corpora nervosa Penis, the nervous Body of the Yard.

Corpus Callosum, the hard Substance of the Brain.

Corpus Glandulosum, the same as the Prostatae.

Corrodentia, Corroding Medicines.

Corosio, Eating away by Medicines, or any salt Humour.

Corrosivum, a Corrosive Medicine.

Corticalis Substantia, the Cortical, or Ash-colour'd Substance of the Brain.

Coryphe,

C

C

Coryphe, the Crown of the Head, where the Hair turns.

Corysa, an Heaviness, or Rheum falling into the Eyes and Nose.

Costæ, the Ribs.

Costyle, the same as Acetabulum, the Socket of the Hip-bone.

Cotyledones, Glands dispersed upon the last Membrane of a Fœtus.

Coxæ Os, the Hip or Huckle-bone.

Coxendix, the same as Coxæ Os.

Cranium, the Skull.

Crafsis, the Temperature, or Mixture of the Blood.

Cremasteres, the Muscles of the Testicles.

Cribrosum Os, a Bone of the Nose resembling a Sieve.

Cricoarytænoides, Muscles of the Larynx arising from the Cartilago Cricoides, and inserted into the Arytænoides.

Cricoides, the Name of one of the Gristles of the Larynx.

Cricothyroides, a Pair of the Muscles of the Larynx arising from the Cartilago Cricoides, and inserted into the Thyroides.

Crisis, the sudden Change of a Disease either towards Health or Death.

Crista Calli, a Portion of the Ethmoides, so call'd from its Resemblance to a Cock's Comb.

Criterion, the same as Crisis.

Critica Signa, those which are taken from the Crisis, as to Health or Death.

Crotaphites Musculi, the temporal Muscles.

Crucialis Incisio, an Incision in Form of a Cross.

Crureus Musculus, an Extender of the Tibia, inserted into the Leg.

Crystalloides Tunica, the same as Aranea.

Crypsorchis, when the Testicles are hid in the Abdomen.

Chrysalinus Humor, the transparent Humour of the Eye.

Cubitus, that Part of the Arm from the Elbow to the Wrist.

Cubiforme Os, the third Bone of the Tarsus, resembling a Cube.

Cucullaris Musculus, the first Muscle of the Scapula, from *Cucullus*, a Hood.

Cuneiformia Offa, the little Wedge-like Bones of the Foot.

Cunus, the Pudendum Muliebre.

Cusios Oculi, an Instrument to preserve the Eye in an Operation.

Cuticula,

D

- Cuticula*, the Scarf-Skin, a Diminutive of *Cutis*, the Skin.
Cyclopion, the White of the Eye so call'd.
Cymbiforme Os, one of the Bones of the Foot resembling a Boat.
Cynanche, see Angina.
Cynanthropia, a Madness occasion'd by the Bite of a Mad-Dog.
Cysticus Ductus, the Passage of the Bile from the Liver to the Duodenum.
Cystis, a Bag.
Cystotomia, a Cutting the Bladder in the Operation for the Stone.

D

- Dacryodes*, a weeping Ulcer.
Darsis, an Excoriation of the Skin.
Dartos, one of the Skins that covers the Testicles.
Dearticulatio, see Diarthrosis.
Decussorium, an Instrument to depress the Dura Mater after Trepanning.
Defensivum Emplastrum, a defensive Plaister.
Defluxio, the Flowing-down of Humours upon any inferior Part.
Deglutitio, the Action of Swallowing.
Defrutum, Wine boil'd till it is half consum'd.
Degmos, that Heat at the Stomach generally call'd the Heart-burn.
Dejectio, a Dejection or going to Stool.
Delapsio, a Falling down.
Deligatio, any kind of Bandage.
Deliquium, a sudden Fainting or Sinking of the Spirits.
Delirium, a kind of Madness or Raving.
Deltoides, a Muscle of the Arm, so call'd from resembling the Greek Letter Delta.
Dentagra, a Pair of Forceps to pull out the Teeth.
Dentes Incisores, the Teeth cutting our Food.
 ——— *Canini*, the Dog or Eye Teeth.
 ——— *Molares*, the Teeth that grind our Food.
Dentifricium, a Medicine to clean the Teeth.
Dentitio, a Breeding of Teeth.
Denudatio, a Laying bare or uncover'd.
Deobstruens, a Medicine that removes Obstructions.
Derivatio, the Derivation of an Humour to any particular Part.
Derma, the same as *Cutis*, the Skin.

Defmos,

- Desmos*, any Sort of Bandage.
Detergens, a cleansing Medicine.
Detritio, a Galling
Diabetes, a Diabetes or Incontinency of Urine.
Diabrosis, a Corrosion by any Medicine or Humour.
Diacinema, when a Bone recedes a little from its Place.
Diaclasis, a Fracture.
Diacope, the Cutting-off any Part.
Diacrisis, a Judging of Diseases and Symptoms.
Diarefis, a Corrosion of the Vessels.
Diæta, a Regimen of Diet.
Diætica, that Part of Physick relating to Diet.
Diagnosis, the Diagnostics, or Signs of a Disease.
Dialepsis, that Space left in the Bandage of a Fracture for the Application of Dressings to a Wound.
Diamotosis, the filling a Wound with Lint.
Diapedesis, the Transudation of Blood thro' the Coats of an Artery.
Diaphoresis, Transpiration or Sweating.
Diaphoretica, Medicines that provoke Sweat.
Diaphragma, the transverse Muscle that separates the two Cavities of the Body.
Diaplasis, the Reduction of a Fracture or Dislocation.
Diaplasma, Unction or Anointing.
Diapnoe, Perspiration or Sweating.
Diarrhæa, a Looseness.
Diarthrosis, a strong and easy Articulation of the Bones, as in the Arm, Thigh, Hands, &c.
Diastole, the Dilatation of the Heart.
Diateretica, see *Diæta*.
Diathefis, the Disposition of the Body to perform its Actions.
Diazoma, the same as *Diaphragma*.
Dictyoides, Net-like, or in the Form of a Net.
Digastricus, a Muscle with two Bellies.
Digerentia, Digestives.
Dilatatorium, an Instrument to open any Part, as the Mouth, Womb or Fundament.
Dioptra, an Instrument to open the Womb.
Diorthrosis, the Reduction of any dislocated or fractur'd Limb.
Diploe, the Separation of the two Tables of the Skull.
Director, a hollow Instrument used to conduct an Incision-Knife.
Discutientia, Discussing or dissolving Medicines.
Dislocatio, when a Bone is out of its Place.

Dissentio,

D

E

Distentio, a Distention or Stretching.

Distortio, is when the Parts err either in Figure or Situation.

Diuresis, a Secretion of Urine.

Diuretica, Medicines that provoke Urine.

Dodycadaetylon, the Intestine Duodenum, so call'd because it is twelve Fingers long.

Dorsalis, a Muscle of the Back.

Dracunculus, an Ulcer made by a Worm.

Ductus, a Channel or Passage.

Duodenum, see *Dodycadaetylon*.

Dysenteria, a Bloody-Flux.

Dyseculotos, an Ulcer difficult to cure.

Dyspnea, a Shortness or Difficulty in Breathing.

Dysuria, a Difficulty in making Water.

E

Ecchymosis, an Extravasation of Blood.

Ecclisis, a Dislocation or Luxation.

Eccope, the Cutting-off any Part.

Eccoprotica, the same as Cathartica.

Eccrisis, a Secretion of Excrements.

Echinophthalmia, an Inflammation of the Eyelid.

Echysis, a Fainting or Swooning away.

Ecpysis, any Excrecence.

Ecpyesma, a Fracture of the Skull when the Pieces press the Meninges.

Eplexis, a sudden Fear or Astonishment.

Ecpnoe, Expiration.

Eptosis, the same as Luxation.

Ecsarcoma, any fleshy Excrecence.

Ectasis, an Extasy, Trance or Swooning.

Ethlimma, an Ulceration occasion'd by a Compression of the Skin.

Ethymata, Wheals or Pustules on the Skin.

Ectome, Extirpation.

Ectrapelogastris, one that has a monstrous Belly.

Ectropium, an Excrecence on the under Eyelid.

Ectrosis, an Abortion or Miscarriage.

Ectyrotica, such Medicines as occasion Abortion.

Ectylotica, such Medicines as consume a Callus or Hardness.

Eczemata, Burning or red Pustules.

Eispnoe, Inspiration, the Opposite of Ecpnoe.

Elastica Vis, an elastic Force.

Elementa, the first Principles or Elements.

Elephantiasis, the Leprosy.

Elevatorium,

E

E

Elevatorium, an Instrument to raise a Depression in the Skull.

Elodes, a sweating Fever.

Elongatio, an imperfect Luxation.

Elythroides, one of the Coats of the Testicles.

Embroke, a Fomentation.

Embryo, an imperfect Child in the Womb.

Embryothlastes, a Crotchet for the Extraction of a Fœtus.

Embryotomia, see Cæsarea Sectio.

Embryulcus, an Instrument for the Extraction of a Fœtus from the Womb.

Emeticum, an Emetick or Vomit.

Emmenia, the same as Catamenia.

Emollientia, Emollients or such Medicines as dissipate Tumours.

Emphysema, any flatulent Tumour.

Empystron, a Convulsion of the Neck that draws the Head forwards.

Empyema, a Collection of Matter in the Thorax.

Emulgentes, the Arteries and Veins of the Kidneys.

Emunctoria, are Cavities from which something is excreted

Enarthrosis, a Species of Articulation.

Encanthis, a Tumour in the great Angle of the Eye.

Encauma, a fiery Pustule of the Eye.

Encephalos, all those Parts contain'd in the Skull.

Encharaxis, a Scarification.

Enchymoma, an Extravasation of Blood by which the external Parts look livid.

Encoileia, the Intestines, and whatever is contain'd in the Abdomen.

Encope, an Incision.

Encranium, the same as Cerebellum.

Endemias, an Universal Distemper, invading a whole Country.

Enema, a Clyster.

Energia, Efficacy or Force.

Enervatio, a Weakning.

Engisoma, a Fracture in the Skull, when a large Fragment of the Bone presses upon the Membranes.

Engomphosis, see Gomphosis.

Ensiformis, the Sword-like Cartilage.

Enteron, a Gut.

Enterocoele, a Rupture in the Groin, from the Falling-down of the Guts.

Entero-

E

E

- Entero-epiplocele*, a Rupture when the Cawl falls down with the Gut into the Groin.
- Enteromphalos*, a Rupture of the Navel.
- Entyposis*, the Socket of the Shoulder.
- Epapharesis*, repeated Bleeding.
- Ephemereum*, a Quotidian or daily Fever.
- Ephippium Os*, a Part of the Os Sphenoides, so call'd from its Resemblance to a Saddle.
- Epicarpium*, a Plaister to the Wrists, as in Fevers.
- Epicolicæ Regionis*, the Parts adjacent to the Colon.
- Epicrasis*, a Critical Evacuation of bad Humours.
- Epidermis*, the Cuticula or Scarf-Skin.
- Epididimes*, little Appendices on the Testicles.
- Epigastrium*, the fore and upper Part of the Belly.
- Epiglottis*, the little Cartilage that covers the Windpipe.
- Epigonatis*, the Knee-pan.
- Epilepsia*, the Falling-Sickness.
- Epiphora*, an Inflammation of the Eyes.
- Epiphysis*, see Appendix.
- Epiplocele*, when the Omentum falls into the Scrotum.
- Epiplocephalum*, a Rupture in the Navel.
- Epiploon*, a Cawl.
- Epiporoma*, any indurated Tumour in the Joints.
- Episcœon*, the Os Pubis.
- Episcopales*, the Valves that are in the Heart, so call'd from resembling a Mitre.
- Epispastica*, blistering Plaisters.
- Episphæria*, the winding Vessels on the outer Part of the Substance of the Brain.
- Epistrophæus*, the first Joint or Vertebra of the Neck.
- Epomis*, see Acromion.
- Epomphalum*, any Application to the Navel.
- Epulis*, a Tumour on the Gums.
- Epulotica*, Medicines that incarn and cicatrize.
- Erysipelas*, St. Anthony's Fire.
- Erythroides*, one of the Coats of the Testicles.
- Escharotica*, Medicines so call'd, that skin over a Wound.
- Esocœ*, an internal Tumour in the Anus.
- Esthiomenos*, an Inflammation in the Skin attended with a sharp Humour.
- Ethmoides*, a Bone in the Nose, so call'd from resembling a Sieve.
- Euchylos*, that Food which affords good Nourishment.
- Eucrasia*, a good Habit of Body.
- Euexia*, the best Constitution of Body, opposite to Cachexia.
- Eupepsia*,

F

F

- Eupepsia*, a good Digestion.
Eupnoe, an easy Breathing.
Eurhythmus, an orderly or regular Pulse.
Eufarcos, well cover'd with Flesh.
Exæresis, Extracting any Thing from the Body.
Excoriatio, a Stripping-off the Skin.
Excrementum, Excrement of any Sort.
Excrescentia, an Excrescence or Growth of Flesh.
Exoche, the Reverse of Esoche.
Examphalos, a Tumour of the Navel.
Exonchoma, any large prominent Tumour.
Exophthalmia, when the Eye juts out beyond its natural Situation.
Exostosis, an unnatural Swelling or Excrescence of the Bones.
Exoticus, any Medicines brought from Foreign Countries.
Extensio, Extension, from *extendo*, to stretch out.
Extractio, the Pulling-out of any Thing.
Extravasatus Sanguis, Blood burst out of the Vessels, and lodg'd in any Part.

F

- Fæces*, the Dregs or Excrements of the Body.
Falx, a Duplicature of the Dura Mater which divides the Brain into two Hemispheres, so call'd from its Resemblance to a Sickle.
Fascia, a Ligature or Bandage.
Fascia Lata, a Membranous Muscle of the Thigh.
Febrifugus, any Medicine that drives away a Fever.
Fenestræ, two Holes in the Concha of the Ear, the one call'd the Oval, the other Round.
Fibula, the lesser Bone of the Leg.
Ficus, Excrescences like Figs growing about the Anus.
Fissura, when a Bone is split Lengthways, and in the Skull, without Depression.
Fistula, any Pipe or oblong Cavity.
Fistula Lachrymalis, a Fistula at the Corner of the Eye.
Flatus, a Puffing-up with Wind.
Fluxus Hepaticus, a Flux of the Liver.
Focile, the two Bones of the Leg, and of the Arm below the Elbow.
Fætus, a Child in the Womb.
Folliculus Fellis, the Gall-Bladder.

†

Fomentatio,

F

G

Fomentatio, the external Application of any warm Liquid Medicine.

Fontanella, an Issue.

Foramen, any Orifice.

Forceps, an Instrument to extract any Thing out of the Flesh.

Formicans Pulsus, a low creeping Pulse.

Fossa, the great Chink of the Pudendum Muliebre.

Fotus, see *Fomentatio*.

Fractura Ossis, a breaking or Rupture of a Bone.

Frænulum, the Bridle of the Tongue.

Frænum, the Ligament or Bridle of the Fore-Skin.

Friçtio, a rubbing.

Fungus, a soft spongy Flesh.

Funiculus Umbilicalis, the Navel String.

Furor Uterinus, a Fury of the Womb.

Furunculus, a Boil or Felon.

G

Glaçtophori Ductus, the Lacteal Vessels.

Galeancones, those who have short Arms.

Gampbela, the Jaws.

Gangamon, the Cawl, so call'd from the various Intertexture of Veins and Arteries resembling a Fishing-Net.

Ganglion, a knotty Tumour in the nervous or tendinous Parts.

Gangræna, a Gangrene or beginning of a Mortification.

Gargarisma, a Medicine to wash or cleanse the Mouth and Throat.

Gastrocnemii, the Muscles of the Calf of the Leg.

Gastro-epiploica, the Vein and Artery that go to the Stomach and Cawl.

Gastrorhaphia, the Suture of Wounds in the Belly.

Gastrotomia, the Cutting open the Abdomen, as in the Cæsa-rean Section.

Gena, the Cheek.

Gemelli, Twins.

Genioglossi, a Pair of Muscles arising from the lower Part of the Chin, and inserted into the Basis of the Tongue.

Geniohyoides, a Pair of Muscles arising from the lower Part of the Chin, and inserted into the lower Part of the Tongue.

Genitalia, the Organs of Generation.

Ginglimus, an Articulation where the Heads of Bones receive each other reciprocally.

Glandula,

G

H

Glandula, a Gland.

Glans, the Head of the Penis.

Glaucoma, a Defect of the Eyes, wherein the Chryſtalline Humour loſes its Transparency.

Glenoides Proceſſus, any Proceſs of a Bone that has a ſhallow Cavity.

Glenoides, two Cavities in the inferior Part of the firſt Vertebra of the Neck.

Globulus Naſi, the lower and cartilaginous Part of the Noſe.

Gloſſocatochos, an Inſtrument to depreſs the Tongue with.

Gloſſocomion, a Cradle for a broken Leg or Thigh.

Glottis, the Chink of the Larynx.

Glutæi Muſculi, the Muſcles forming the Buttock.

Glutia, two Prominences of the Brain, call'd the Nates.

Gomphoſis, a Species of Articulation, ſuch as the Teeth into the Jaw-bone.

Gonagra, the Gout in the Knee.

Gongrona, any Tumour upon the Nervous Parts.

Gonorrhœa, an Effuſion of Seed.

Grandinoſum Os, the ſame with Cuboides, ſo call'd from reſembling an Hail-ſtone.

Graphoides Proceſſus, ſee *Styloides Proceſſus*.

Grus, an Inſtrument call'd a Crane's Bill.

Gummata, a Tumour whoſe Contents reſemble Gums.

Gutta Serena, a Blindneſs when the Eye looks clear.

Gynæcomastoſis, a præternatural Growth of the Breſt.

Gynæ Comyſtax, the Hair on the upper Part of a Woman's Secret.

H

Habena, a Bandage uſed to draw the Lips of a Wound together.

Hæmatocèle, any Tumour charg'd with Blood.

Hæmatomphalocèle, a Tumour in the Navel, turgid with Blood.

Hæmoptoicus, one that ſpits Blood.

Hæmoptyſis, a Spitting of Blood.

Hæmorrhagia, a Spitting of Blood.

Hæmorrhoides, the Piles.

Hæmoſtaticum, a Medicine to ſtop Bleeding.

Halo, the Circle round the Nipple of the Breſt.

Hamus, an hook'd Inſtrument to extract the Child out of the Body in hard Labour.

Heſtica Febris, an Heſtick Fever attending Conſumptive People.

Helcoma, an Exulceration, or Ulcer.

D d

Helcyſter,

H

H

Helcyster, an Instrument to draw the Fœtus out of the Womb.

Helix, the circular or spiral Rim of the Ear.

Hemiceraunius, a Bandage for the Breast and Back.

Hemicrania, a Pain seizing one Side of the Head only.

Hemiplegia, a Palsy on one Side only, the same as Hemiplexia.

Hepar, the Liver.

Hepatica, Remedies against Diseases of the Liver.

Hermaphroditus, one that is both Male and Female.

Hernia, a Rupture.

Herpes, a little creeping Ulcer.

Heterogeneous, of another Kind.

Homogeneous, of the same Kind.

Hordeolum, a Tumour on the Eyelid of the Shape of a Barley-Corn.

Humerus, the Shoulder.

Humilis, a Muscle of the Eye, so call'd from its drawing it downward.

Hyaloides, the vitreous Humour of the Eye.

Hyboma, an Incurvation of all the Vertebrae of the Back.

Hydarthros, a Gleet from a wounded Joint.

Hydatoides, the watry Humour of the Eye.

Hyderos, the same as *Hydrops*, a Dropsy.

Hydragoga, Medicines against the Dropsy.

Hydrargyros, Quicksilver.

Hydrenterocele, a Falling-down of the Intestines with Water into the Scrotum.

Hydrocardia, the Water in the Pericardium.

Hydrocele, a watry Tumour of the Scrotum.

Hydrocephalum, a Water in the Head.

Hydromphalon, a watry Tumour of the Navel.

Hydrophobia, a Dread of Water, one of the Symptoms attending the Bite of a mad Dog.

Hydrops, the Dropsy.

Hydrophthalmion, an œdematous, or watry Swelling of the Eyelids.

Hygiea, Health or Sanity.

Hygrocirsocele, a compound Tumour of the Scrotum, part watry, part varicous.

Hygrocollyrium, an Eye-Water, or Medicine for the Eye.

Hymen, a Membrane of the Uterus, suppos'd to be a Token of Virginity.

Hyoides, the Bone of the Tongue, resembling the Greek Letter Upsilon.

Hyothyroides,

H

I

- Hyothyroides*, two Muscles of the Larynx arising from the Os Hyoides, and are inserted in the Thyroides.
- Hyperoon*, the Palate of the Mouth.
- Hyperfarcosis*, any fleshy Excrescence.
- Hypnoticus*, a Medicine to procure Sleep.
- Hypochondrium*, the upper Part of the Abdomen.
- Hypochyma*, a Suffusion of the Eye.
- Hypocælon*, that hollow Part lying under the Eyes.
- Hypogastrium*, the lowest Region of the Belly.
- Hypoglossis*, the Vein that lies under the Tongue.
- Hyponomon*, an Ulcer that has many Sinus's.
- Hypophoræ*, deep ulcerous Fistula's.
- Hypopion*, a Collection of Matter under the Tunica Cornea of the Eye.
- Hypospadicus*, one whose Urethra terminates underneath the Glans.
- Hypothenar*, one of the Muscles bending the Thumb.
- Hypothesis*, a Supposition.
- Hypsiloides*, see Hyoides.
- Hypulus*, an Ulcer that lurks under a Cicatrice.
- Hysterica*, Medicines against Diseases of the Womb.
- Hysterocele*, a Womb-Rupture, when it falls thro' the Rings of the Muscles into the Groin.
- Hysterotomatocia*, see Cæsarea Sectio.
- Hysterotomia*, an anatomical Dissection of the Womb.

I

- Ichor*, a Kind of Serum tinged with Blood.
- Ichoroides*, a watry Blood.
- Icterus*, the Jaundice.
- IctERICA*, Medicines against the Jaundice.
- Jecur*, the Liver.
- Jejunum*, the second of the small Guts, so call'd, because it is commonly found empty.
- Idea Morbi*, the Propriety and Essence of a Disease.
- Idiopathia*, a primary Disease; not derived from another.
- Idiosyncrasia*, the peculiar Habit of each Body.
- Ignis Sacer*, see Erysipelas.
- Ilion*, the third of the small Guts.
- Iliaca Passio*, the Iliac Pain in the Bowels.
- Iliaca Regio*, that Cavity in the Abdomen from the short Ribs to the Pubis.
- Iliaca Vasa*, the Iliac Vessels.

Iliacus Musculus, the Iliac Muscle, one that serves to bend the Thigh.

Ilium Os, the Iliac Bone.

Impetigo, a Ring-worm or Tetter.

Inappetentia, a Loathing, or Loss of Appetite.

Incarnantia, Medicines that produce Flesh.

Incisio, an Incision.

Incisores Dentes, the Fore-Teeth.

Incubus, the Night-Mare.

Incus, the Anvil, a Bone of the Ear against which the Malleus strikes.

Index, the Fore-Finger.

Indicatio, an Indication, or Pointing-out.

Indicator Musculus, one of the Muscles extending the Fore-Finger.

Indignatorius Musculus, one of the Muscles of the Eye, call'd the discontented Muscle.

Inedia, an Abstaining from Meat.

Inflatio, a Puffing-up

Infra Scapularis Musculus, the Muscle under the Scapula.

Infra Spinatus, the Muscle above the Scapula, call'd also *Supra Scapularis*.

Infundibulum, see Choana.

Infundibulum Renum, the Pelvis, or Basin of the Kidneys.

Inguen, the Groin.

Innominatum Os, the Bone adjoining to the Coccyx, so call'd from having no Name.

Inosculatio, see Anastomosis.

Inspiratio, Inspiration, or the Taking-in Air by the Lungs.

Inspissatio, a Growing-thick.

Intemperies, an Unseasonableness, or Untemperateness.

Intercostales Musculi, the Muscles between the Ribs.

Intermissio Febrium, see Apyrexia.

Internodii, the mutual Connexion of the Bones of the Fingers.

Interossei Musculi, Muscles that move the Fingers sideways.

Interscapulium, that Part of the Scapula call'd the Spine.

Intertrigo, a Galling or Chafing between the Thighs.

Intestinum, a Gut.

Involucrum Cordis, see Pericardium.

Iris, that Circle round the Pupil of the Eye, so call'd for having many Colours like the Rainbow.

Ischæma, Medicines to stop Bleeding.

Ischias, the Sciatica, or Hip Gout.

Ischion,

I

L

- Ischion*, the Hip, or Huckle-Bone.
Ischuria, a Suppression of Urine.
Fugale Os, see *Zygoma*.
Jugularis Vena, the Vein of the Neck.
Junctura, an Articulation, or Joint.

L

- Labia*, the Lips of the Mouth, the Vagina, or of a Wound.
Labia Leporina, Hare-Lips.
Labis, any Kind of Forceps.
Labyrinthus, a Winding-Cavity in the Bone of the Ear.
Lachrymalia Puncta, two Perforations at the Corner of the Eye, next the Nose, thro' which the Tears pass.
Lactea Febris, the Milk-Fever attending Women for some Days after their Delivery.
Lactea Vasa, the Vessels carrying the Chyle, resembling Milk.
Lactumina, little Ulcers, or Scabs on the Skin, so call'd, because they happen to Sucking-Children.
Lacunæ, little Pores in the Passage of the Yard and Vagina Uteri.
Lagochilus, see *Labia Leporina*.
Lagophthalmus, a Distemper of the Eye, when the upper Eye-lid does not cover the Eye.
Lambdoides, a Suture of the Scull, so call'd from its Resemblance to the Greek Letter Λ .
Lamina, a Scale or Plate.
Lanceola, a Lancet.
Laryngotomia, see *Bronchotomia*.
Larynx, the Head of the Windpipe.
Lassitudo, a Weariness.
Latissimus Dorsi, a Muscle of the Back, so call'd because it is the broadest.
Laxantia, Laxative, or Loosening Medicines.
Lenta Febris, a slow Fever.
Lenticulare, an Instrument us'd to smooth the Bone after the Operation of the Trepan.
Lepidoides Sutura, see *Sutura Squamosa*.
Lepra, a dry Scab, that makes the Skin scurfy.
Levator Musculus, a Muscle that raises the Scapula.
Lethargus, a Lethargy, Drowsiness or Heaviness.
Leucoma, a Disease of the Cornea, call'd also *Albugo*, *Nubecula*.

L

L

Leucophlegmatia, a general Dropsy throughout the whole Body.

Leucorrhœa, the Fluor Albus, or Whites in Women.

Lienteria, a Flux, by which the crude Aliments are voided with little Alteration.

Ligamentum, a Ligament.

Ligamentum Giliare, the Ligament in the Eye that fastens the Chryselline Humour to the Uvea.

Ligamenta Uteri, the Ligaments of the Womb, two slender, and one broad.

Linea Alba, a white Line form'd by the meeting of the Tendons of the Abdominal Muscles.

Lineæ Fatales, some Lines upon the Face, from whence some pretend to predict Fortunes.

Lipodermus, one that has lost his Fore-Skin.

Lypothymia, a Feebleness or Weakness.

Lippitudo, a Blear-eyedness, a Species of Ophthalmia.

Lypiria, a Fever in which the external Parts are cold, and the internal hot.

Liquefaction, a Melting together.

Lithargyrum, Litharge, a Recrement of Lead thrown off from Silver refined.

Lithiasis, the Generation of Stones in the Bladder.

Lithoides Os, the Os Petrosum, so call'd from its Hardness.

Litholobon, the Instrument that extracts the Stone from the Bladder.

Lithontriptica, Medicines to dissolve the Stone in the Kidneys, or Bladder.

Lithotomia, the Operation of Cutting for the Stone.

Lithotomus, one skilled in Cutting for the Stone.

Lividus, Livid, Black and Blue.

Lobus Auris, the Tip of the Ear.

Lobus Hepatis vel Pulmonis, the Division of the Liver or Lungs into large Parts.

Lochia, the Cleansing the Uterus after the Foetus is come away.

Loimographia, a Description of contagious Diseases.

Loimos, a pestilent Poison.

Longissimus Dorfi, the longest Muscle of the Back.

Lordosis, the Bending of the Vertebrae of the Back inward.

Loripes, Crooked-leg'd.

Lues Venerea, the Venereal Disease.

Lumbago, a Pain in the Loins.

Lumbricales,

L

Lumbricales Musculi, Four Muscles of the Hand, so call'd because they are slender like Worms.

Lumbus & Lumbi, the Loins or Reins.

Lunatici, Lunaticks.

Lupus, a Cancer, so call'd from its devouring the Flesh like a Wolf.

Luxatio, when a Bone slips out of its Cavity.

Lympha, a limpid Humour separated first from the Blood in the Brain, then by the Nerves throughout the whole Body, and runs into the Chyle.

Lymphæ Duëtus, the Vessels that carry the Lympha into the Blood.

M

Macrocephalos, one that has a large Head.

Macula Epatica, Spots in the Liver.

Macula Matricis, a Spot that a Child brings with it from the Womb.

Madarosis, a Falling-off of the Hair.

Mala, the round Part of the Cheek.

Malacia, a depraved Appetite.-

Malaëtica, emollient or softening Medicines.

Malaxatio, the Softning of any Thing.

Malignus Morbus, a malignant Distemper.

Malleus, the Hammer or small Bone of the Ear that strikes against the Incus.

Malleolus, the Ankle.

Mammæ, the Breasts of a Woman.

Mammillares Processus, two Processes in the Occipital Bone, so call'd from their Shape.

Mandibula, the Jaw-Bone

Manducatores Musculi, see *Masseteres*.

Mania, a Madness.

Manubrium, the Handle of any Instrument.

Marasmodes, a Fever gradually bringing on a Consumption.

Marasmus, a consuming Fever.

Marmarygæ, Flashings of Light appearing before the Eyes in some Disorders of the Head.

Marsupialis Musculus, the Burfal Muscle, or Obturator Internus, that moves the Thigh.

Masseteres, the Muscles of the Lower-Jaw.

Masticatio, the Action of Chewing.

Masticatorium, a Medicine to be chew'd to excite Spitting.

Mastoides Processus, see *Mammiformes Processus*.

M

M

Mater Dura & Pia, the two Membranes covering the Brain.

Matrix, the Womb.

Maxilla, the Jaw.

Maxillaris Sinus, a Cavity in the Jaw-Bone.

Meatus Auditorius, the Passage into the Ear.

Meconium, the Excrements of the Fœtus after the Delivery.

Mediana Vena, the middle Vein of the Arm.

Mediastinum, the Duplicature of the Pleura dividing the Thorax into two Parts.

Meditullium, the spongy Substance between the two Tables of the Scull.

Medulla, the Marrow.

Medulla Oblongata, the Spinal Marrow.

Megalocoelos, one that has a large prominent Belly.

Melancholia, Melancholy.

Meliceris, a Kind of Wen, containing a Substance like Honey.

Melosis, the Searching any hollow Part with a Probe.

Membrana, a Membrane, so call'd because it covers *Membrum*, a Limb.

Membrana Adiposa, the fat, or adipous Membrane.

Membranosus Musculus, the Fascia Lata, or Membranous Muscle of the Thigh.

Mendosæ Costæ, the false Ribs.

Meningophylax, an Instrument to defend the Meninges from any external Pressure.

Meninges, the Membranes of the Brain, so call'd.

Menses, Womens Courses.

Mentagra, a Tetter or Ring-Worm.

Mesenterium, a Membrane in the Middle of the Abdomen, which fastens the Guts together.

Mesocolon, that Part of the Mesentery that adheres to the Colon.

Mesocranon, the Crown of the Head.

Metacarpus, the four Bones of the Hand, next the Wrist.

Metacondyli, the last Points of the Fingers.

Metaphrenum, the Region of the Diaphragma.

Metastasis, the Degeneration of one thing into another.

Metatarsus, the five little Bones of the Foot annex'd to the Tarsus.

Metopum, the Forehead.

Metrenchyta, a Syringe for the Womb.

Metroproptosis,

M

N

Metropoptosis, a Falling-down of the Womb.

Miasma, a contiguous Infection.

Miliaris Herpes, a Tetters, or Ring-Worm, commonly called the Shingles.

Milphosis, the Falling of the Hair from the Eye-brows.

Miserere mei, the same as *Iliaca Passio*.

Mitralis Valvulæ, see *Episcopales Valvulæ*.

Modiolus, a circular Trepan, resembling in Shape the Nave of a Wheel.

Mogilalos, one that has a Difficulty in Speaking.

Mola, the Knee-pan, as also a Lump of Flesh, called a false Conception.

Molares Dentes, the Teeth that grind the Food.

Monopegia, an acute fixed Pain in the Head.

Monorchis, he that has but one Testicle.

Mons Veneris, the Mount of Venus, an Eminence on the upper Part of the Os Pubis.

Morbilli, the Measles.

Morsus Diaboli, the Fringes of the *Tubæ Fallopiantæ*, wantonly so called by some.

Mortariola, Caverns of the Teeth.

Mortificatio, see *Sphacelus*.

Motus Convulsivus, Convulsive Motions or Fits.

Mucus, a Sliminess.

Mucronatum Os, see *Ensisformis*.

Mucro Cordis, the Point of the Heart.

Mundificativus, a Cleansing Medicine.

Musculus, a Muscle.

Myæteres, the Nostrils.

Mydisis, Corruption from too much Moisture.

Mydriasis, a Dimness of Sight from a Dilatation of the Pupil of the Eye.

Myloglossi Musculi, a Pair of Muscles arising from the Inside of the *Dentes Molares*, and are inserted into the Tongue.

Myocephalum, a small Tumour in the Uvea of the Eye, like the Head of a Fly.

Myodes Platysma, a Muscous Expansion.

Myologia, a Discourse upon the Muscles.

Myopia, Short-Sightedness.

Myotomia, a Dissection of the Muscles.

N

Narcotica, Medicines that procure Sleep.

Nares,

N

O

Nares, the Nostrils.

Nates Cerebri, a Part of the Brain, so called from its Resemblance to the Buttock.

Naviculare Os, the third Bone of the Tarsus, called so from its Figure.

Nausea, a Loathing, an Inclination to Vomit.

Necrosis, a Mortification, or Deadness of Parts.

Nephritis, any Distemper in the Kidneys.

Nephritica, Medicines to remove the Stone in the Kidneys.

Nephros, a Kidney.

Neurotomia, a Dissection of the Nerves.

Neurotica, Medicines to remove nervous Obstructions.

Neurototos, one who has a Nerve wounded.

Nodofus, knotty, like the Gout.

Noli me tangere, a cancerous Sore, so called on Account of the Pain.

Nomas, a corroding putrid Ulcer.

Nosocomium, an Hospital.

Nothæ Costæ, see *Mendosæ Costæ*.

Nubiculæ, small Clouds appearing in the Urine.

Nucha, the Nape of the Neck.

Nutritio, Nutrition, or Nourishment.

Nyctalopia, a Defect wherein a Man sees better in a dusky Day, than a clear one.

Nymphæ, two little Protuberances at the Entrance into the Vagina.

Nymphotomia, an Excision of the Nymphæ.

O

Obelæa Sutura, the streight Suture of the Head, called also *Sagittalis*.

Obstructio, a Stopping, or Shutting-up.

Obsturatores Musculi, the bending Muscles of the Thigh.

Odontagogus, an Instrument to draw Teeth with.

Odontalgia, the Tooth-Ach.

Odontiasis, Breeding of Teeth.

Odontoides, Tooth-like.

Odontotrinma, see *Dentrificium*.

Oedema, a soft pituitous Tumour.

Oesophagus, the Gullet.

Oestrum Veneris, see *Clitoris*.

Oeconomia, Oeconomy.

Olecranon, the great Process of the Ulna.

Olysbema,

O

P

- Olysthema*, a perfect Luxation.
Omasum, see *Abomasum*.
Omocotyle, the Acetabulum, or Socket of the Scapula.
Omoplata, the Shoulder-Blade.
Omphalos, the Navel.
Omphalocoele, a Rupture in the Navel.
Omentum Reticulum, the Cawl.
Omogra, the Gout in the Shoulder.
Oneirogmos, Lascivious Dreams.
Oplochrisma, sympathetic Ointments.
Ophthalmia, Inflammation of the Eye.
Opisthotonos, Convulsion in the Neck.
Opisthocyphosis, when the Spine of the Back-Bone is bent outwards.
Opticus Nervus, the Visual Nerve.
Orchotomia, Castration.
Ornamentum Foliaceum, the Ends of the Fallopian Tubes, fringed like Leaves.
Organica Pars, a Composition of Dissimilar Parts form'd for Sense.
Orthocolon, a Stiffness in the Joint.
Organum, Organ.
Orgasmus, Quick Motion.
Oscitatio, a Gaping, Yawning.
Osculum Uteri, the Mouth of the Womb.
Ostagra, a Forceps to take out Bones.
Osteologia, a Treatise of the Bones.
Otenchytes a Syringe for the Ears.
Otalgia, a Pain in the Ears.
Otenchyta, an Auricular Injection.
Otica, Medicines against Diseases of the Ears.
Oviductus, the same as *Tuba Fallopiana*.
Ozæna, a Fœtid Ulcer in the Nostrils.

P

- Pachuntica*, Incrassating Medicines.
Pædiarthrocace, a Disease incident to the Joints of Children, commonly attended with a Caries.
Palatum, the Palate, or Roof of the Mouth.
Palliatio, a palliative Method of making incurable Diseases easy.
Palma, the Palm of the Hand.
Palmaris Musculus, the Fleishy Part of the Palm of the Hand.
Palinus,

- Palinus*, a Palpitation of the Heart
Palpebræ, the Eye-lids.
Palpitatio a Palpitation of the Heart.
Pampino-forme Corpus, the Veins and Arteries of the Testicles, included in a common Coat, which resemble the Tendrils of Vines, curled and knotty.
Panacea, a Medicine that cures all Diseases.
Panchymagoga, Medicines supposed to subdue all manner of Diseases.
Pancreas, is a conglomerate Gland of the Abdomen, which separates a Lympha into a Duodenum by a proper Duct.
Pandemius, a common Disease.
Panniculus Carnosus, a Membrane lying between the Cutis and Membrana Adiposa.
Papillæ Intestinorum, small Glands in the Intestines, which imbibe the strained Chyle, and transmit it to the Lacteals.
Papilla, the Nipple of the Breast.
Paracentesis, the Perforation of the Belly in Dropsical Cases.
Paracoe, Deafness.
Paracynanche, see Angina.
Paralampsis, a bright Speck in the back Part of the Eye.
Paralophia, the lower and lateral Part of the Neck, according to Keill.
Paramesos, the Ring-Finger.
Paraphymosis, a Contraction of the Prepuce, so that it will not cover the Glans.
Paraplegia, an universal Palsy.
Parthrema, a Luxation, when the Bone is a little slipt from its Place.
Parastata, see Epididymis.
Parasynarche, an Inflammation of the Muscles of the Pharynx.
Paregoricus, a Medicine creating Sleep.
Parencephalos, the Cerebellum.
Parenchyma, any of the Viscera through which the Blood is strained.
Parietalia Ossa, the Bones of the Temples.
Paristmia, the Tonsils.
Paronychia, a Tumour in the Fingers, called a Whitlow.
Parotis Glandula, the Gland under the Ear.
Paroxysmus, the Fit of a Distemper that returns at certain Intervals.
Parulis, an Inflammation of the Gums.

Patella,

Patella, the Knee-Pan.

Patheticus, the Name of the fourth Pair of Nerves.

Pathognomicus, a Symptom, or Symptoms, inseparable from a Distemper.

Pathologia, a Description of Diseases, and their Symptoms.

Patientiæ Musculus, the same as Elevator.

Pectriagra, the Gout in the Articulation of the Cubitus.

Pectinis Os, the same as Os Pubis.

Pectoralis Musculus, the Pectoral Muscle.

Pectus, the Breast.

Pellis, the Skin or Hide.

Peltalis Cartilago, see Scutiformis.

Pelvis, the Basen of the Kidneys, or the lower Part of the Abdomen.

Penicillus, a Pencil made of fine Hair or Lint, to clean the Tympanum.

Pepsis, a Coction, or Fermentation of Humours.

Pereterion, a Trepan.

Perforans Musculus, the Perforating Muscle.

Perforatus Musculus, the Perforated Muscle.

Pericardium, the Membrane that surrounds the Heart.

Periclasia, a Fracture with a large Wound, wherein the Bones are bare.

Pericnemias, the Parts about the Tibia.

Pericranium, the Membrane that covers the Skull.

Perinæum, that Ligament between the Anus and the Scrotum.

Periosteum, the Membrane covering the Bone.

Peripneumonia, an Inflammation of the Lungs.

Peristalticus Motus, a Worm-like Motion of the Guts.

Peristerna, the Parts round the Breast.

Perisystole, that Instant of Rest between the Systole and Diastole of the Heart.

Peritonæum, the Membrane that lines the Inside of the Abdomen.

Perizonia, a Bandage, or Truss used in Ruptures.

Pernio, a Kibe on the Heel.

Perone or *Tibula*, the external small Bone of the Leg.

Perseus Ignis, a Carbuncle, or a Tumour somewhat resembling it.

Perspiratio, see Diaphoresis.

Pessarium, a Pessary, or Instrument to support the Womb.

Pestis, the Pest or Plague.

Petechia, a Petechial Fever.

Petrosum

Petrosum Os, see *Lithoides*.

Phagadena, an Eating Cancer.

Phalangosis, a Fault in the Eye-Lids, when they have two or more Rows of Hair in the Eye-Lashes.

Pharyngotomia, see *Bronchotomia*.

Phagedenica, Medicines destroying the superfluous Flesh of Ulcers.

Pharynx, the upper Part of the Oesophagus, or Gullet.

Phymosis, see *Paraphymosis*.

Phleborrhagia, the Bursting of a Vein.

Phlebotomia, Blood-letting.

Phlegmone, a Tumour with Inflammation.

Phlyctænæ, Pustules in the Skin, from a hot Tumour in the Body.

Phlegma, Phlegm.

Phlegmagoga, a Medicine to purge Choler.

Phlegmasia, see *Phlegmon*.

Phœnicus Morbus, see *Elephantiasis*.

Phricodes, a Trembling Fever.

Phrenitis, a Phrensy, a Disease of the Mind.

Phthisis, a Consumption.

Phthiriasis, the Lousy Evil.

Phyma, is any preternatural Humour.

Phygethon, a Tumour arising from the Inflammation of the Glands.

Physocèle, a Rupture.

Physiognomica, certain Signs of a Distemper, which may be foreseen in the Countenance.

Physiognomia, Physiognomy, or a Skill in understanding Nature.

Physiologia, that Part of Physick which teaches the Constitution of a human Body.

Pia Mater, a Membrane that closely incloses the Brain.

Piestron, an Instrument to bruise the Bones in the Head of a Fœtus.

Pilaris Morbus, see *Phalangosis*.

Pinealis Glandula, see *Conarium*.

Pinna Nasi, see *Alæ*.

Pituitaria Glandula, a small Gland situated in the Sella Turcica, at the Basis of the Scull.

Placenta, Part of the Secundine, or the Womb-Cake, that comes away after the Fœtus.

Plantaris Musculus, the Muscle whose Tendon covers *Planta*, the Sole of the Foot.

Planta

- Planta Pedis*, the Sole of the Foot.
- Plethora*, a Redundancy of Blood in the Body.
- Pleuritis*, a Pleurisy.
- Pleura*, the Membrane that covers the Cavity of the Thorax.
- Plerotica*, see *Sarcotica*.
- Plethoricus*, Plethoric, Sanguine, Bloody.
- Plexus Ganglioformis*, a Knot formed by the Junction of two Nerves.
- Plexus Choroides*, see *Choroides*.
- Plexus Reticularis*, see *Plexus Choroides*.
- Plica*, an Endemic Disease, peculiar to the Polanders.
- Pneumatocele*, a Wind-Rupture in the Scrotum, or Cod.
- Pneumatophalos*, a Protuberance, or Thrusting-out of the Navel by Wind.
- Pneumatosis*, a Generation of Animal Spirits.
- Pneumonica*, such Medicines which facilitate Respiration.
- Podagra*, the Gout in the Feet.
- Pollutio Nocturna*, Involuntary Emission of Seed in the Night.
- Polysarcia*, Corpulent or Over-fleshy.
- Polythrophia*, Over-nourished.
- Polyosteon*, that Part of the Foot that has a great many Bones.
- Polypus*, a Tumour in the Nostrils, that has commonly several Roots.
- Pomum Adami*, Apple of Adam.
- Pons Varolii*, a Process, so called from Varolius.
- Poplitæa Vena*, the Poplite Vein, formed by two Branches of the Crural Vein.
- Poplitæus Musculus*, a Muscle that moves the Leg.
- Porocèle*, a Rupture proceeding from a callous, or stony Substance.
- Porus Biliarius*, the Biliary Duct.
- Porasis*, the Generation of a Callus.
- Porta Vena*, see *Vena*.
- Præcordia*, the Parts about the Heart.
- Præputium*, the Fore-Skin of the Penis.
- Presbytia*, a Defect in the Sight, when a Man sees better at a Distance than near.
- Priapismos*, a continual Erection of the Penis.
- Primores Dentes*, the Fore-Teeth.
- Procatartica Causa*, the Pre-existent Cause of a Disease.
- Processus* a Process or Protuberance, as in a Bone.
- Procidencia*,

P

P

Procidentia, the Falling-out of any Part from its proper Situation.

Procheilon, see *Prolabia*.

Procondylos, the first Joint of each Finger.

Progastor, one that has a prominent Belly.

Prolabia, the Extremities of the Lips.

Pronervatio, see *Aponeurosis*.

Proptosis, see *Procidentia*.

Prostaphysis, a Growing-together of the Fingers.

Prostatae, see *Parastatae*.

Prosthesis, that Part of Surgery, which supplies any thing defective.

Prostomia, the red Part of the Lips.

Processus Ciliares, Muscular Fibres in the Eye, which dilate and contract the Pupilla.

Processus Peritonæi, the Processes of the Peritonæum.

Profundus Musculus, see *Perforans Musculus*.

Pronatores Musculi, two Muscles serving for the Pronation of the Radius.

Prophasis, the Fore-knowledge in Diseases.

Prophylactica, a Part of Physick, instructing us to prevent Diseases.

Psoas Musculus, one of the Muscles that bends the Thigh.

Psoa, a Scurf, or Dryness upon the Skin.

Psoia, a Scurvy Scabbiness in the Body.

Psoica, Medicines against Scabs or Blotches in the Skin.

Psyctica, cooling Medicines.

Pterygoides Processus, the Process of a Bone, so called from its Resemblance to a Bat's Wing.

Pterygosiaphylini, two Muscles arising from the *Processus Pterygoides*, which is inserted in the Uvula.

Ptarmica, Sneezing Powder, the same as *Sternutatoria*.

Ptyalismus, too great a Degree of Spitting.

Ptyalon, an Expectoration of Matter from the Lungs.

Pubes, the Hair of the Privy Parts.

Pubis Os, the Share-Bone.

Pudenda, the Privities in Man or Woman.

Puerpera, a Woman in Child-Bed,

Pulmones, the Lights or Lungs.

Pulsus, the Beating of the Heart and Arteries.

Punctum Lachrymale, see *Lachrymalia Puncta*.

Punctum Saliens, the first Motion of Life in an Embryo.

Punctura Nervorum, a Puncture of a Nerve or Sinew.

Pupilla, the round Aperture of the *Tunica Uvea* in the Eye.

Purpura,

P

Q

R

- Purpura*, a Purple Fever.
Pus, Corruption or Matter.
Pustula, a Little Pimple.
Pustulæ, Pustules or Blisters.
Putrida Febris, see Synochus.
Pylorus, the lower Orifice of the Stomach.
Pyramidalis Musculi, Muscles in the Shape of a Pyramid.
Frynoides Processus, a Process, so call'd from *Neucleus*, a Kernel.
Pryopus, one that has a Carbuncled Face.
Pryosis, a Fiery Redness of the Face.
Pryotica, hot fiery Medicines that violently heat the Body.
Pyuleon, an Instrument to fetch out the Matter from the Cavity of the Breast, or any sinuous Ulcer.
Pyxidis Os, see Basilare Os.

Q

- Quartana Febris*, a Quartan Ague, or Fever that returns every fourth Day.
Quadratus, the Four-Square Muscle that bends the Loins.
Quadrigeminus, a Muscle that moves the Thigh.
Quatrio, see Astragalus.
Quotidiana Febris, a Quotidian Ague, or a Fever that returns every Day.

R

- Rabies Hydrophobica*, see Hydrophobia.
Rhaboides Sutura, the Strait Suture, called also Sagittalis.
Rachitæi Musculi, Muscles belonging to the Back.
Radii Musculi, Muscles belonging to the Radius, a Bone of the Arm.
Radius, the Lesser Bone of the Arm.
Ranulæ Venæ, two Veins under the Tongue.
Rancedo, a Hoarseness.
Raspatorium, an Instrument to scrape rotten Bones with.
Rectum Intestinum, the Strait-Gut.
Reductio, the Replacing of a dislocated Bone.
Respiratio, the Dilatation of the Thorax, by drawing in the Air.
Receptaculum Chyli, the Receptacle of the Chyle.
Recti Musculi, the Right Muscles of the Abdomen.
Remissio Febrium, a Remission of a Fever, distinguishable from a regular Intermission.

R

S

- Renes*, the Reins or Kidneys.
Repellentia, Repelling Medicines.
Res non Naturales, the six Non-Naturals.
Res præter Naturam, Things against Nature.
Resolventia, Resolvent or Discutient Medicines.
Rete Mirabile, a Web of Veins and Arteries in the Brain, surrounding the Glandula Pituitaria.
Retiformis Tunica, the Net-like Tunicle, or Expansion of the Optick Nerve.
Retiformes, Net-like.
Retina Tunica, a Coat of the Eye, a Net.
Rachitis, the Rickets.
Rhachitæ, the Muscles of the Chine-Bone.
Rhagades, Clefts or Chaps in the Hands, Feet, or any Part of the Body.
Rhagoides Tunica, one of the Coats of the Eye.
Rhaphe, a Suture.
Rheumatismus, a wandering Pain throughout the Body.
Rhinenchytes, a Syringe for the Nostrils.
Rhomboides Musculus, a Muscle, so called from its Figure.
Rotator Major & Minor, the Muscles giving a round Motion to the Thigh.
Retundus Musculus Major Brachii, the round Muscle.
Rotula, the Bone of the Knee-Pan.
Rubeola, a kind of Small-Pox, or Measles.

S

- Sacculus Cordis*, see Pericardium.
Sacrum Os, the holy Bone, which constitutes the Pelvis in the Abdomen, in the Posterior Part.
Sagittalis Sutura, the Suture reaching from the Coronal to the Lambdoidal Suture.
Salvatella, a Vein on the Back of the Hand near the little Finger.
Salivales Ductus, the Passages of the Saliva or Spittle.
Salivantia, Remedies that occasion Spitting.
Saphæna, a Vein of the Leg near the Ankle.
Sarcocèle, a Fleshy Tumour of the Testicles.
Sarcoepiplocele, a Fleshy Omental Rupture.
Sarcoma, any Fleshy Tumour.
Sarcotica, such Medicines as generate Flesh.
Sarcomphalos, a Fleshy Excrecence on the Navel.
Sartorius Musculus, the Taylor's Muscle, so called because it brings the Legs across.

Saxifraga,

- Saxifraga*, see *Lithontriptica*.
Scala, an Instrument to reduce a Dislocation.
Scaleni, a Pair of Muscles which extend the Neck, so called from their Shapes.
Scaphoides Os, see *Naviculare Os*.
Scapula, see *Omoplata*.
Scarificatio, superficial Incision in the Flesh.
Sceletum, a proper Connection of all the Bones of the Body when dried.
Scolotyrbe, a wandering Pain in the Legs, proceeding from the Scurvy.
Schirrhus, a hard Tumour livid and void of Pain.
Sclerophthalmia, a hard Tumour with Pain in the Eye-lid.
Sclerosarcoma, an hard Tumour, with an Ulceration on the Gums.
Sclerotica, see *Cornea*.
Scolecoides Processus, the Worm-like Process of the Cerebellum.
Scorbutus, the Scurvy.
Scotomia, a Giddiness in the Head, occasioning a Darkness of Sight.
Scrobiculus Cordis, the Pit of the Stomach, below the *Cartilago Ensiformis*.
Scrophula, a Tumour in the Glands of the Ears and Throat, the King's Evil.
Scrotocele, a Rupture in the Scrotum.
Scutiformis, a Cartilage, so called from its Shape.
Secundina, the Secundine, or After-Birth.
Sella Equina, the Cavity wherein the *Glandula Pituitaria* is lodged in the Skull.
Semimembranosus, the Semimembranous Muscle that serves to move the Leg.
Seminervosus, the Seminervous Muscle that acts within the former.
Semiotica, a Part of Physick, delivering the Signs of Health and Sickness.
Semispiratus, a Muscle of the Back.
Sepæ, large Corrosive Pustules.
Secretio, the Separation of the Juices from the Blood.
Septum Cordis, the Fleshy Substance that divides the two Ventricles of the Heart.
Septum Narium, the middle Part, or Bridge of the Nostrils.
Septum Lucidum, a very transparent Membrane in the Brain.
Septum Transversum, see *Diaphragma*.

Serangodesulus, a Fistulous Ulcer.

Serpigo, see Herpes.

Serratus Musculus, a Muscle, so called because it is indented like a Saw.

Serum, the white and most fluid Part of the Blood.

Sesamoidea Offa, several small Bones in the Hands and Feet, resembling Sesamy-Seed.

Sevatio, see Steatoma.

Sialismos, a Salivation.

Sigmoides, the Valves of the Arteria Pulmonalis and Aorta.

Similares Partes, those Parts which are alike each other throughout the whole.

Sinciput, the Fore Part of the Head.

Singultus, a Sobbing or Hiccup.

Sinus, a Cavity in an Ulcer.

Solen, a Cradle for a broken Limb.

Soleus Musculus, the Muscle of the Sole of the Foot.

Somnolentia, a continual Inclination to Sleep.

Sophronesteres, the Eye-Teeth, or Teeth of Wisdom.

Soporariæ Arteriæ, see Carotides.

Spargariosis, the immoderate Distention of the Breast of a Woman.

Spasmus, a Convulsion or Cramp.

Spatha, a Spatula.

Specillum, a Probe.

Sperma, *Semen*, the Seed whereby Things are generated.

Spermatica Vasa, the Vessels that contain the Seed.

Spermatocele, a Rupture in the Scrotum, caused by a Relaxation of the Spermatick Vessels.

Sphacelus, a perfect Mortification of any Part.

Sphenoides, see Cuneiforme Os.

Sphenopharyngæus, a Muscle arising from the Os Sphenoides, and inserted into the Pharynx.

Sphincter, the Muscle that draws up the Anus.

Spica, a Bandage, so call'd from its Resemblance to an Ear of Corn.

Spina Dorsi, the Spine of the Back.

Spina Ventosa, a Caries in the Bone from an inward Cause.

Spinalis Medulla, the Spinal Marrow.

Spinati Musculi, two Muscles of the Neck, possessing the whole along the Spine.

Splanchnica, Medicines against Diseases of the Bowels.

Splenitis Vena, the same with Salvatella.

Splenii Musculi, a Pair of Muscles arising from the Vertebrae of the Neck and Back.

Spandylus,

Spondylus, a Vertebra of the Back.

Spongoides Os, the Cribriforme Os, so called from being porous like a Sponge.

Sporadici Morbi, are Diseases of a different Kind, infesting many People at the same Time.

Spurii Morbi, those Diseases that do not observe a regular Course.

Squammosa sutura, see *Lepidoides*.

Squinanthia, see *Angina*.

Staltica, Astringent Medicines.

Stapes, one of the Bones of the Ear, call'd the Stirrop.

Staphule, the Uvula, commonly called the Palate of the Mouth.

Staphyloma, a Disease in the Eye, when the Cornea is burst, and the Uvea stands out.

Steatocoele, an Hernia in the Scrotum, containing a Matter like Suet.

Steatoma, a Sort of Wen, that contains a Substance like Suet.

Sternum, the Breast-Bone.

Sternohyoidei, a Pair of Muscles, so called from their Origin and Insertion.

Sternothyroidei, a Pair of Muscles of the Breast.

Sternutatio, a Sneezing.

Stypticum, any Astringent Medicine.

Stomachus, the Stomach, or rather the Upper Orifice of the Ventricle.

Strabismus, a Distortion of the Eyes.

Stranguria, a Stoppage in the Urine, when it flows only Drop by Drop.

Stremma, a Dislocation.

Struma, see *Scrophula*.

Styloceratohyoides, a Pair of Muscles arising from the Processus Styloides, and inserted into the Horns of the Os Hyoides.

Styloglossi, a Pair of Muscles that raise the Tongue.

Stylohyoides, see *Styloceratohyoides*.

Styloides, a Process of the Os Temporum.

Stylopharyngæus, a Pair of Muscles that dilate the Throat, arising from the Processus Styloides.

Subalaris, a Vein under the Arm-pit.

Subcartilagineum, see *Hypocondrium*.

Subclavia Vasa, the Vessels under the Collar Bone.

Subscapularis Musc. see *Infra Scapularis*.

Succus Pancreaticus, see *Callicreas* and *Ductus Pancreaticus*.

Sudorifica, Medicines provoking Sweat.

Suffitus, a Perfuming Fumigation.

Suffocatio Uterina, see *Hysterica Passio*.

Superbus Musculus, the Muscle lifting up the Eye.

Supercilium, an Eye-brow.

Super Scapularis Superior, the same as *Supraspinatus*.

Super Scapularis Inferior, the same as *Infraspinatus*.

Supinatores Musculi, the Muscles that turn the Palm of the Hand downward.

Suppositorium, a Medicine to put up the Anus to create a Discharge.

Suppressio Urinæ, the same as *Ischuria*.

Suppurantia, such Medicines as bring Abscesses to Maturity.

Sura, the Calf of the Leg.

Sutura Ossium, a Juncture of the Bones in a Saw-like Manner.

Sycosis, a little Excrescence on the Anus like a Fig.

Sympathia, the natural Agreement of Things.

Symphysis, that Articulation of the Bones that has no manifest Motion.

Symptoma, the Symptom or Token of a Disease.

Synactica, contracting Medicines.

Synanche, a Species of Quinsy from an Inflammation of the Muscles of the Pharynx.

Synchondrosis, the Articulation of a Joint by an intervening Gristle.

Syncope, a Deficiency of Spirits and Strength.

Syndismosis, the Connection of Bones by a Ligament.

Synucurosis, the Connection of Bones by a Tendon or Ligament.

Synovia, a slimy Matter in the Joint.

Syntenosis, the Connection of Bones by a Tendon.

Synthesi, the anatomical Connection of the Bones of the whole Body.

Synymensis, the Connection of Bones by a Membrane, as in the Skull of an Infant.

Syringomata, Surgeons Knives, with which they cut Fistula's.

Syringotomia, the Cutting of a Fistula.

Syffarcosis, the Connection of a Bone by Flesh.

Systole, the Contraction of the Heart.

T

Tabes, a Consumption.

Tabes

T

T

Tabes Dorsalis, a Consumption in the Spinal Marrow.

Tabum, a thin Sort of Sanies proceeding from a bad Ulcer.

Tænia, a broad flat Worm like a Piece of Tape.

Talpes, Tumours on the Head, commonly the Consequence of the Venereal Disease.

Talus, a Bone of the Heel with a convex Head. See *Astragalus*.

Taxis, the Reduction of the Intestine in an Hernia.

Teomarsis, a Conjecture on Diseases.

Telephium, a Name for an incurable Ulcer.

Temperamentum, a Quality resulting from a Mixture of the Elements.

Temperantia, such Things as bring the Body to a due Temperament.

Temperies, the same as *Crafsis*.

Temporales Musculus, the Temporal Muscle arising from the *Os Frontis*, and inserted into the lower Jaw.

Tempus, the lateral Part of the Skull.

Tenacula, a surgical Instrument much like the Forceps.

Tendo, the Extremity of a Muscle whereby Motion is perform'd.

Tenesmus, a continual Desire of going to Stool.

Tenontrotus, one who has the Tendon wounded.

Tentigo, the same as *Priapismus*.

Terebellum, see *Modiolus*.

Teredo, a Caries or Rottenness in the Bones.

Teres Musculus, the same with *Rotundus*.

Terthra, the middle and lateral Parts of the Neck.

Terminthus, a Tumour on the Leg with black Spots, resembling the Fruit of the Fir-tree.

Tertiana Febris, a third Day's intermitting Fever.

Testes, the Testicles.

Testes Cerebri, two Prominences in the Brain resembling the Testes.

Testiculus Venereus, a Swelling in the Testicles from a Venereal Cause.

Tetanus, a Convulsion, or constant Contraction.

Thenar, one of the Muscles that extend the Thumb.

Therapeutica, that Part of Physick which teaches the Art of Healing.

Therioma, a severe Ulcer, not unlike a Carcinoma.

Thlipsis, a Compression of the Vessels.

Tholus Diacletis, a Bandage of the Head so call'd.

T

T

Thoracica, Medicines against Distempers of the Chest.

Thorax, the upper Cavity of the Body, call'd the Breast.

Thorombus, a Coagulation of Blood or Milk.

Thymus, the Gland of the Breast situated in the Throat.

Thyroarytenoides, a Pair of Muscles arising from the Cartilago Thyroides, and contract the Larynx.

Thyroides, a Cartilage, so call'd from its Resemblance to a Shield.

Tibia, the great Bone of the Leg.

Tibiales Musculi, the Muscles belonging to the Tibia.

Tinea, an Ulcer on Childrens Heads that eats like a Moth.

Tinnitus Aurum, a Ringing in the Ears.

Tonsillæ, the Glands under the Ear, vulgarly the Almonds of the Ear.

Tophus a Node, or Knot upon the Bone.

Topica, External Medicines applied to any Part.

Torcular Herophilli, that Part where the four Cavities of the Dura Mater unite.

Tormina Hyfterica, Hyfterick Passions.

Tormina post Partum, Pangs or Throws after Child-bearing.

Toxica, Poisonous Things, such as the Barbarians use to their Darts.

Trachea, see *Aspera Arteria*.

Trachomaticum, a Kind of Collyrium formerly in Use.

Tragus, a little Eminence on the Ear, on which there frequently grows Hair.

Transpiratio, the same as Diaphoresis.

Transversales Musculi, the transverse Muscles of the Back.

Trapezius Musc. a Muscle so call'd from its Resemblance to a Trapezium.

Traumatica, Vulnerary Medicines.

Tremor, a Trembling or Shaking.

Trepanatio, the Operation of Trepanning.

Triangulare Os, the little Bone between the Lambdoidal and Sagittal Suture.

Triangulares Musculi, any Muscles of a Triangular Form.

Trichismus, a Fracture of the Scull as small as an Hair.

Tricuspidæ Valvulæ, Valves in the Heart, so call'd from their Resemblance to three Spears.

Triploides, an Instrument used in Depressions of the Scull.

Trismus, a Grinding of the Teeth.

Trochanter, two Processes in the upper Part of the Thigh-Bone.

Trochlea,

T

Trochlea, the Gristle thro' which one of the Tendons that moves the Eye passes.

Trochlearis Musculus, the Muscle whose Tendon passes thro' the Trochlea.

Truncus, that Part of the great Artery and Vein which descends from the Heart.

Tubæ Fallopianæ, two Passages into the Womb that resemble Trumpets.

Tubercula, the same as Phymata.

Tumor, a Swelling or Tumefaction.

Tunica, a thin Coat or Covering. It is used chiefly to the Coats of the Eyes.

Tyloma, Callous or hard Flesh, or that Substance that grows about fractured Bones.

Tympanites, a watry Tumour in the Abdomen, with a Mixture of Wind.

Tympanum, the Drum of the Ear.

Typhodes, a continual Symptomatic Fever.

Typhomania, a Delirium, with a Phrensy and Lethargy.

Typus, is the Order of Fevers consisting of Intention and Remission.

Tyriasis, the same as Elephantiasis.

V

Vagina Uteri, the Passage into the Womb.

Valvulæ, thin Membranes that take their Names according to their Figure.

Varicosum Corpus, that Weaving of Blood-Vessels, which enters into the Testicles.

Variolæ, the Small-Pox.

Varix, an Over-stretching or Dilatation of a Vein.

Vasa, those Tubes thro' which the Fluids pass as Veins, Arteries, &c.

Vas Breve, a Vein passing from the Stomach to the Splenick Vein.

Vasa Deferentia, those Vessels that convey the Seed from the Testicles to the Vesiculæ Seminales.

Vasa Lactea, the Lacteal Vessels which receive the Chyle from the Intestines.

Vasa Spermatica, the Vessels preparing the Seed.

Vasti Musculi, Muscles that extend the Thigh, so call'd from their Bigness.

Vestis an Elevatory used to raise depress'd Bones.

Velamentum Bombycinum, the interior soft Membrane of the Intestines.

Ventriculus,

V

X

Z

Ventriculus, the Stomach.

Ventriculi Cerebri, the Ventricles of the Brain.

Ventriculi Cordis, the two Ventricles of the Heart.

Vermiformis Processus, a Prominence in the little Brain, so call'd from its Shape.

Verricularis Tunica, see Amphiblestroides.

Verrucæ, a Sort of Tubercle call'd Warts.

Vertebræ, the Bones forming the Spine of the Back.

Vertex, the Crown of the Head.

Verticilli, the same as Cotelydones.

Vesica, the Bladder.

Vesiculæ Seminales, the Vessels receiving the Seed from the Testicles.

Vigilia, Watchings.

Viscera, the Bowels or Entrails.

Vitreus Humor, the glassy Humour of the Eye, so call'd from its Transparency.

Ulceratio, an Ulceration or superficial Ulcer.

Ulna, the great Bone of the Arm.

Umbilicus, the Navel.

Volsella, little Forceps or Pincers.

Urachus, the Urinary Passage of the Fœtus that goes into the Allantois.

Ureter, the Passage of the Urine from the Kidneys to the Bladder.

Urethra, the Urinary Passage of the Penis.

Uterus, the Womb.

Uvea Tunica, see Rhagoides.

Uvula, the Palate of the Mouth.

X

Xerophthalmia, a dry Soreness of the Eyes.

Xiphoides Cartilago, a Gristle so call'd from its Resemblance to a Sword.

Z

Zona, a Kind of Herpes that runs round the Body.

Zootomia, the Artificial Dissection of Animals.

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